



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 115575

To: Richard Schnizer  
Location: REM-2C18  
Art Unit: 1635  
Monday, March 08, 2004

Case Serial Number: 09/857448

From: Beverly Shears  
Location: Remsen Bldg.  
RM 1A54  
Phone: 571-272-2528

[beverly.shears@uspto.gov](mailto:beverly.shears@uspto.gov)

### Search Notes

## RECEIVED SEARCH REQUEST FORM

MAD-1 20 Scientific and Technical Information Center

Requester's Full Name: RICHARD SCHNIZER (STIC) Examiner #: 76557 Date: 2/27/04  
 Art Unit: 1635 Phone Number 30 2-0762 Serial Number: 09/857,448  
 Mail Box and Bldg/Room Location: REMSEN 2C18 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: NEW OLIGOMERIC CONJUGATES LIABLE TO TRANSFER - - -

Inventors (please provide full names): PATRICIA M. DOUX, CHANTAL PICHON, MAHATOMB BELLO-ROUFAT,  
MICHEL MONSIGNY,

Earliest Priority Filing Date: 12/2/98

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

PLEASE SEARCH CLAIM 25, ATTACHED.

## STAFF USE ONLY

Searcher: Beverly c 2528

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: 03-08-04

Searcher Prep & Review Time: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

## Type of Search

NA Sequence (#) \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_

Structure (#) \_\_\_\_\_

Bibliographic \_\_\_\_\_

Litigation \_\_\_\_\_

Fulltext \_\_\_\_\_

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

## Vendors and cost where applicable

STN ☒ \_\_\_\_\_

Dialog \_\_\_\_\_

Questel/Orbit \_\_\_\_\_

Dr.Link \_\_\_\_\_

Lexis/Nexis \_\_\_\_\_

Sequence Systems \_\_\_\_\_

WWW/Internet \_\_\_\_\_

Other (specify) \_\_\_\_\_

Art Unit: 1635

| S #           | Updt     | Database                           | Query  | Time                   | C |
|---------------|----------|------------------------------------|--|------------------------|---|
| <u>S12149</u> | <u>U</u> | USPT                               | 6,372,499.pn.  | 2004-04-27<br>10:40:38 |   |
| <u>S12148</u> | <u>U</u> | USPT                               | polyethyleneimine.clm.<br>and nucleic.clm.   | 2004-04-27<br>10:27:54 |   |
| <u>S12147</u> | <u>U</u> | PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | polyethyleneimine.clm.<br>and nucleic.clm.   | 2004-04-27<br>10:27:45 |   |
| <u>S12146</u> | <u>U</u> | USPT                               | imidazol.clm.  | 2004-04-27<br>09:51:19 |   |
| <u>S12099</u> | <u>U</u> | PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | oligonucleotide and<br>cationic lipid and<br>(lipid or<br>liposome).clm. and<br>polycation.clm.      | 2004-04-26<br>11:55:56 |   |
| <u>S12098</u> | <u>U</u> | PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | oligonucleotide. and<br>cationic lipid and<br>(lipid or<br>liposome).clm. and<br>polycation.clm.     | 2004-04-26<br>11:55:43 |   |
| <u>S12097</u> | <u>U</u> | PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | oligonucleotide.clm.<br>and cationic lipid<br>and (lipid or<br>liposome).clm. and<br>polycation.clm. | 2004-04-26<br>11:55:02 |   |
| <u>S12096</u> | <u>U</u> | PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | cationic lipid and<br>(lipid or<br>liposome).clm. and<br>polycation.clm.                             | 2004-04-26<br>11:54:45 |   |

Art Unit: 1635

|  |  |                            |
|--|--|----------------------------|
| <u>S12095</u> U PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | 5908777.pn. and<br>oligonucl\$                             | 2004-<br>04-26<br>11:52:15 |
| <u>S12094</u> U PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | lee.in. and huang.in.<br>and folate and<br>oligonucleotide | 2004-<br>04-26<br>11:34:47 |
| <u>S12093</u> U PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | lee.in. and huang.in.<br>and folate                        | 2004-<br>04-26<br>11:32:42 |
| <u>S12092</u> U PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | lee.in. and huang.in.<br>and lpdii                         | 2004-<br>04-26<br>11:32:29 |
| <u>S12091</u> U USPT                               | 6372499.pn. and<br>oligo\$                                 | 2004-<br>04-26<br>10:18:10 |
| <u>S12090</u> U USPT                               | 6372499.pn. and kit  | 2004-<br>04-26<br>10:16:45 |
| <u>S12089</u> U USPT                               | 6372499.pn. and<br>pterin\$                                | 2004-<br>04-26<br>10:03:46 |
| <u>S12088</u> U USPT                               | 5,733,762.pn.  | 2004-<br>04-26<br>09:30:18 |
| <u>S12087</u> U USPT                               | 6372499.pn. and<br>omega                                   | 2004-<br>04-26<br>08:50:44 |
| <u>S12086</u> U PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | 6372499.pn. and<br>active substance                        | 2004-<br>04-26<br>07:31:41 |
| <u>S12085</u> U USPT                               | 6372499.pn. and<br>recogn\$                                | 2004-<br>04-26<br>06:50:06 |
| <u>S12084</u> U USPT                               | US-6372499-<br>B1.did.                                     | 2004-<br>04-26<br>06:49:34 |
| <u>S12083</u> U PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD | recogn\$ and<br>1997wo-fr02022                             | 2004-<br>04-26<br>06:48:54 |
| <u>S12082</u> U EPAB                               | WO-9822610-<br>A1.did.                                     | 2004-<br>04-26             |

Art Unit: 1635

S12081 U USPTUS-6372499-  
B1.did.

06:44:45

2004-

04-26

06:37:02

S12080 U USPTUS-6372499-  
B1.did.

2004-

04-26

06:36:19

FILE 'MEDLINE' ENTERED AT 15:52:27 ON 23 APR 2004

L1 1193 S AMINO ACID TRANSPORTER  
L2 48 S L1 AND HISTIDINE  
L3 765 S (IMIDAZOLE OR QUINOLINE OR PTERINE OR PYRIDINE) AND  
TRANSPORT  
L4 300 S L3 AND IMIDAZOLE  
L5 0 S L3 AND PTERIDINE  
L6 0 S L3 AND PTERINE  
L7 158 S L3 AND QUINOLINE  
L8 346 S L3 AND PYRIDINE  
L9 15 L7 AND RECEPTOR  
L10 70 PTEROIC OR PTEROATE  
L11 1808 L10 OR PTERIN OR PTERINE  
L12 21 L11 AND (RECEPTOR OR TRANSPORT) AND MEMBRANE

FILE 'MEDLINE, CAPLUS, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH'  
ENTERED AT

11:01:11 ON 27 APR 2004

L1 1558 SEA PLU=ON MIDOUX P?/AU OR PICHON C?/AU OR BELLO-  
ROUFAT M?/AU  
OR MONSIGNY M?/AU  
L2 211 SEA PLU=ON L1 AND CONJUGAT?  
L3 8 SEA PLU=ON L2 AND OLIGOMER?  
L4 4 DUP REM L3 (4 DUPLICATES REMOVED)  
D BIB AB 1-4

## WEST Search History

DATE: Tuesday, April 27, 2004

| Hide?                    | Set Name | Query  | Hit Count |
|--------------------------|----------|--|-----------|
|                          |          | <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i> |           |
| <input type="checkbox"/> | L5       | L4 and oligomer\$  | 4         |
| <input type="checkbox"/> | L4       | (midoux or monsigny or pichon or bello-roufat).in.             | 468       |
|                          |          | <i>DB=USPT; PLUR=YES; OP=ADJ</i>                               |           |
| <input type="checkbox"/> | L3       | 6,372,499.pn.  | 1         |
| <input type="checkbox"/> | L2       | polyethyleneimine.clm. and nucleic.clm.                        | 33        |
|                          |          | <i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i> |           |
| <input type="checkbox"/> | L1       | polyethyleneimine.clm. and nucleic.clm.                        | 60        |

END OF SEARCH HISTORY

09/857448

719,819.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

| PATENT NO.  | KIND   | DATE     | APPLICATION NO. | DATE        |
|---|--|----------|-----------------|-------------|
| US 5582968  | A  | 19961210 | US 1992-946054  | 19920915    |
| US 5106726  | A  | 19920421 | US 1990-558799  | 19900726    |
| AU 9174399  | A1   | 19911017 | AU 1991-74399   | 19910415    |
| AU 635124   | B2   | 19930311 |                 |             |
| FI 9103560  | A  | 19920127 | FI 1991-3560    | 19910725    |
| US 5436126  | A  | 19950725 | US 1991-805374  | 19911211    |
| US 5639594  | A  | 19970617 | US 1993-83947   | 19930628    |
| WO 9406826  | A1   | 19940331 | WO 1993-US8638  | 19930915    |
| W: AU, CA, FI, JP, NO   |  |          |                 |             |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE    |  |          |                 |             |
| AU 9351276  | A1   | 19940412 | AU 1993-51276   | 19930915    |
| EP 662082   | A1   | 19950712 | EP 1993-922189  | 19930915    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE |  |          |                 |             |
| JP 08500122   | T2   | 19960109 | JP 1993-508235  | 19930915    |
| US 5747239  | A  | 19980505 | US 1994-262037  | 19940617    |
| NO 9500977  | A  | 19950314 | NO 1995-977     | 19950314    |
| FI 9501198  | A  | 19950315 | FI 1995-1198    | 19950315    |
| PRIORITY APPLN. INFO.:  |  |          | US 1990-481348  | B2 19900216 |
|   |  |          | US 1990-510153  | A2 19900416 |
|   |  |          | US 1990-558799  | A3 19900726 |
|   |  |          | US 1991-651735  | A2 19910207 |
|   |  |          | US 1991-667275  | B2 19910311 |
|   |  |          | US 1991-719819  | A2 19910624 |
|   |  |          | US 1991-805374  | A2 19911211 |
|   |  |          | US 1992-946054  | A2 19920915 |
|   |  |          | WO 1993-US8638  | W 19930915  |
| AB  | The present invention relates to novel branched peptides specific for the diagnosis and prevention of non-A, non-B hepatitis (NANBH), as well as hepatitis C virus (HCV) infection. More particularly, the present invention is directed to branched synthetic substituted and hybrid peptides containing at least one epitope which is effective in detecting NANBH-associated antibodies in patients with NANBH using immunoassay techniques. In addition, this invention provides immunoassays for the detection and diagnosis of NANBH using the subject peptides, vaccine compns. for prevention and treatment of NANBH or HCV infection as well as a method of treating or preventing NANBH and HCV infection. |          |                 |             |
| IT  | 156986-20-8P<br>RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)<br>(branched hybrid and cluster peptides for diagnosis of hepatitis C virus infection or non-A non-B hepatitis and as vaccine)  |          |                 |             |
| RN  | 156986-20-8 HCAPLUS  |          |                 |             |
| CN  | L-Lysine, N2,N6-bis(L- $\alpha$ -aspartyl-L-tyrosyl-L- $\alpha$ -glutamyl-   |          |                 |             |

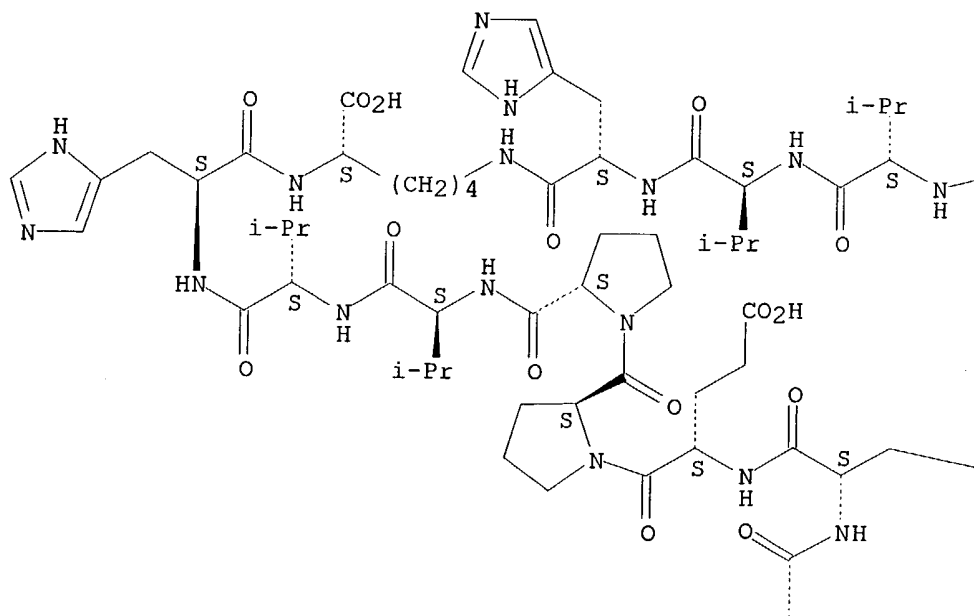
Searcher : Shears 571-272-2528

09/857448

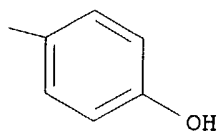
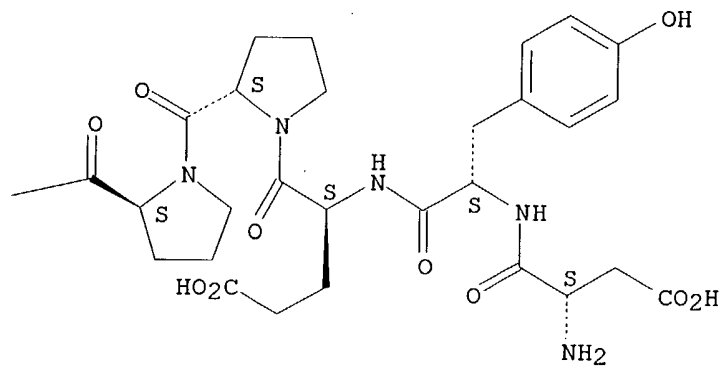
L-prolyl-L-prolyl-L-valyl-L-valyl-L-histidyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

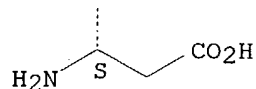


PAGE 1-B



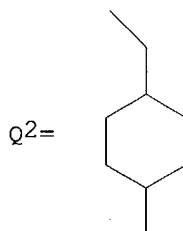
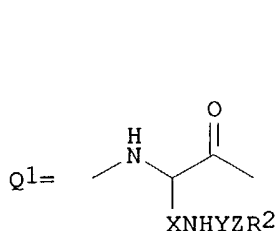
Searcher : Shears 571-272-2528





L13 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1995:573685 HCAPLUS  
 DOCUMENT NUMBER: 123:33649  
 TITLE: Preparation of 6-position modified decapeptide  
 LHRH antagonists  
 INVENTOR(S): Greer, Jonathan; Haviv, Fortuna; Fitzpatrick,  
 Timothy D.; Swenson, Rolf E.; Nichols, Charles  
 J.; Mort, Nicholas A.  
 PATENT ASSIGNEE(S): Abbott Laboratories, USA  
 SOURCE: PCT Int. Appl., 86 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.   | KIND | DATE             | APPLICATION NO. | DATE     |
|--|------|------------------|-----------------|----------|
| WO 9413313   | A1   | 19940623         | WO 1993-US11628 | 19931130 |
| W: CA, JP, US  |      |                  |                 |          |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |                  |                 |          |
| CA 2136078   | AA   | 19940623         | CA 1993-2136078 | 19931130 |
| EP 673254  | A1   | 19950927         | EP 1994-903367  | 19931130 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE  |      |                  |                 |          |
| JP 08504209  | T2   | 19960507         | JP 1993-514229  | 19931130 |
| US 5698522   | A    | 19971216         | US 1995-446809  | 19950601 |
| PRIORITY APPLN. INFO.:   |      |                  | US 1992-987921  | 19921204 |
|  |      |                  | WO 1993-US11628 | 19931130 |
| OTHER SOURCE(S):   |      | MARPAT 123:33649 |                 |          |
| GI   |      |                  |                 |          |



AB A-D-E-G-J-L-M-Q-R-T [A = N-acetyl-D-3-(naphth-2-yl)alanyl,

N-acetyl-D-phenylalanyl, N-acetylsarcosyl, etc.; D = D-Phe, D-3-(4-chlorophenyl)alanyl, D-3-(4-fluorophenyl)alanyl, etc.; E = D-3-(pyrid-3-yl)alanyl, D-3-(thiazol-2-yl)alanyl, etc.; G = Ser, Ser(OBzl), etc.; J = N(R1)-L-[3-(4-(3-amino-1,2,4-triazol-5-yl)aminophenyl)]alanyl, N(R1)-L-tyrosyl, N(R1)-L-homoarginyl, etc.; R1 = H, alkyl; L = Q1; X = (CH2)n, Q2; n = 1-6; Y = D- or L-Ala, 4-aminobutyryl, 5-aminopentanoyl, azaglycyl, D-leucyl, D-valyl, etc.; Z = null, D-alanyl, azaglycyl, Gly, D-cyclohexylalanyl, D-His, D-Phe, etc.; R2 = 3-amino-1,2,4-triazol-5-yl, Ac, biotinyl, 2-furoyl, isonicotinoyl, (substituted) PhCO, etc.; M = Leu, Val, L-cyclohexylalanyl, etc. Q = L-citrullyl, L-homocitrullyl, Arg, etc.; R = Pro, N(R1)-Ala; T = NHet, D-alanylamide, D-serylamine, sarcosamide, etc.], were prepared Thus, Ac-D-2-Nal-D-4-Cl-Phe-D-3-Pal-Ser-NMeTyr-D-Lys (Nε-glycylnicotinoyl)-Leu-Lys (Nε-isopropyl)-Pro-D-Ala-NH2 [2-Nal = 3-(naphth-2-yl)alanyl, 4-Cl-Phe = 3-(4-chlorophenyl)alanyl, 3-Pal = 3-(pyrid-3-yl)alanyl], prepared on methylbenzhydrylamine resin, antagonized LHRH with pA2 = 11.45.

IT 163334-86-9P 163437-74-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

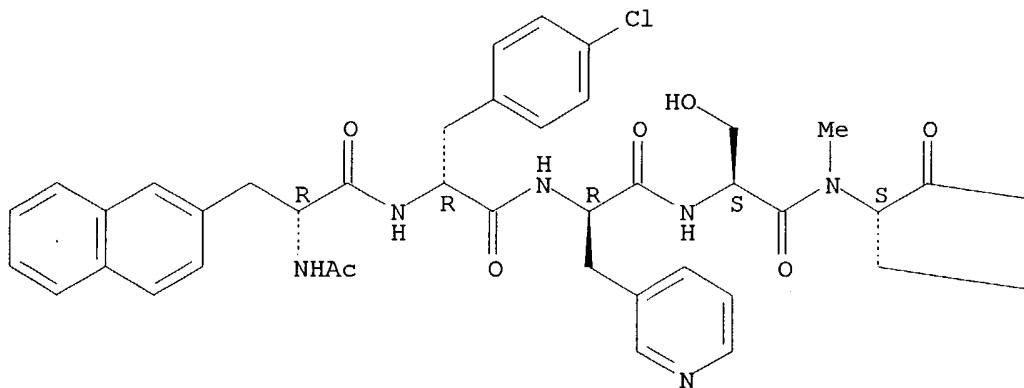
(preparation of 6-position modified decapeptide LHRH antagonists)

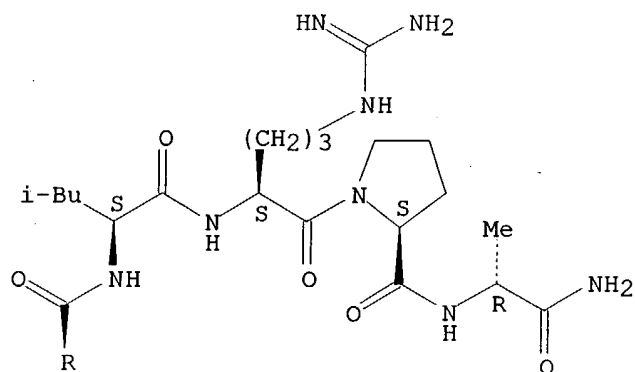
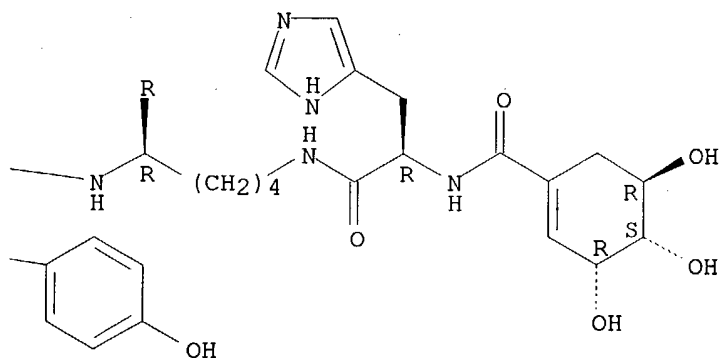
RN 163334-86-9 HCAPLUS

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N-methyl-L-tyrosyl-N6-[N-[(3,4,5-trihydroxy-1-cyclohexen-1-yl)carbonyl]-D-histidyl]-D-lysyl-L-leucyl-L-arginyl-L-prolyl-, [3R-(3α,4α,5β)]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





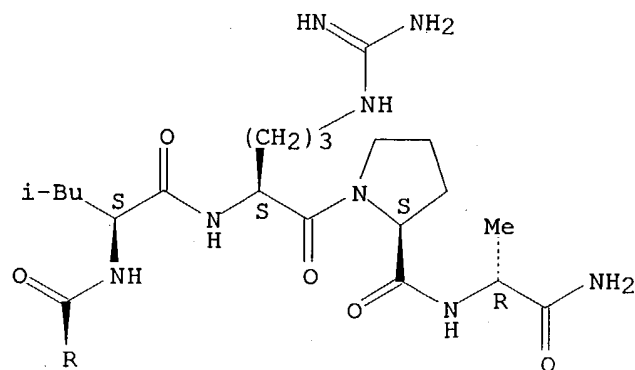
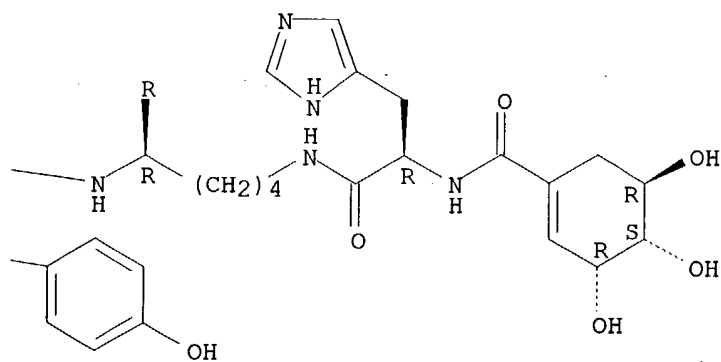
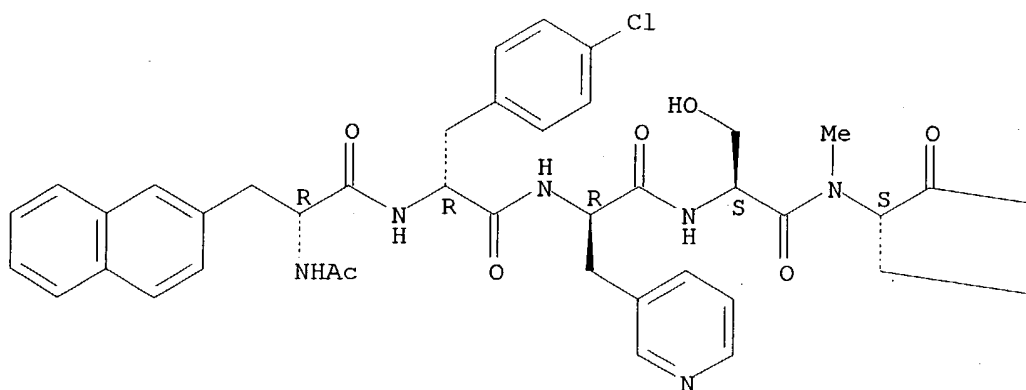
RN 163437-74-9 HCAPLUS  
 CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N-methyl-L-tyrosyl-N6-[N-[(3,4,5-trihydroxy-1-cyclohexen-1-yl)carbonyl]-D-histidyl]-D-lysyl-L-leucyl-L-arginyl-L-prolyl-, [3R-(3 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )]-, trifluoroacetate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 163334-86-9

CMF C84 H110 Cl N19 O18

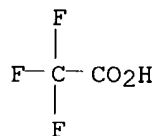
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



L13 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:385685 HCAPLUS

DOCUMENT NUMBER: 123:228864

TITLE: Synthetic nucleases crafted from L-lysine

AUTHOR(S): Ranganathan, Darshan; Mishra, Rakesh K.; Patel, Bhisma K.; Vaish, Narendra K.

CORPORATE SOURCE: Biomol. Res. Unit, Regional Res. Lab., Trivandrum, 695019, India

SOURCE: Proceedings - Indian Academy of Sciences, Chemical Sciences (1994), 106(5), 1071-88

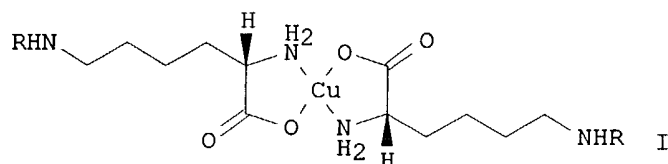
CODEN: PIAADM; ISSN: 0253-4134

PUBLISHER: Indian Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB A central strategy for the design of chemical nucleases is presented. This involves the utilization of the  $\alpha$ -amino carboxylate unit of L-lysine to form Cu(II) templates to function as the cleaving center on the one hand and  $\omega$ -amino group for the attachment of DNA recognition elements on the other, thus giving rise to a duplex recognition termini, harboring a centrally placed Cu(II) for potentiation of oxidative scission. The recognition element studied encompasses a spectrum of structures ranging from quinazolines and purine residues to specifically crafted peptide segments that have potential to form secondary structures. These could be represented as R-K-Cu-K-R (I), wherein R is the recognition system and K-Cu-K, a composite crafted from lysine, consisting of the cleaving center from metal complexation of  $\alpha$ -amino acid unit and the spacer consisting of the four methylene groups of the side chain. The

binding and DNA scission profile of the sixteen chemical nucleases thus prepared and fully characterized have been probed by UV, fluorescence quenching and electrophoretic studies. Their binding to calf thymus DNA is associated with a decrease in  $\epsilon$  and an approx. 10-15 nm red shift. The involvement of GC sequence in binding is indicated from studies with poly[d(G-C)·d(G-C)] and poly[d(A-T)·d(A-T)], wherein the hypochromicity and red shift were found to be quite pronounced in the former. Fluorescence quenching studies with I (R = Bz-Trp-Trp) demonstrated the binding of one ligand at approx. every stretch of 112 bp and approx. a stretch of 80 bp in the presence of salt. The DNA cleaving properties of all the nucleases were demonstrated with pBR 322 and p blue script 11KS using standard protocols. In all cases, covalently closed supercoiled (form I DNA) is converted largely into open circular (form II) suggesting nicking of the single strand at binding sites. Sequence specificity expts. with the nuclease. I (R = Bz-Ala-Gly) in a 32P 3'-end labeled 117bp restriction fragment (Eco RI/Hind III) of pUC-18 showed almost exclusive attacks at thymidylate residues in particular, thymines corresponding to 5T of the CTAT(3'-5') box. While the most preferred site of attack is found at T of 3'-ATC-5' at the trinucleotide level, cleavage studies at low concentration have shown that at pentanucleotide level, the lone sequence 3'-GATCT-5' (a part of the inverted repeat -GAGATCTC-) is favored (fragment 92) over the more frequently occurring 3'-TATCT-5' segment.

IT 158347-79-6P 168030-20-4P

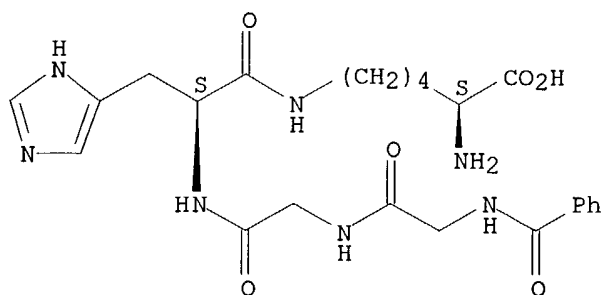
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and DNA cleavage of lysine-containing copper complexes as synthetic nucleases)

RN 158347-79-6 HCAPLUS

CN L-Lysine, N6-[N-[N-(N-benzoylglycyl)glycyl]-L-histidyl]- (9CI) (CA INDEX NAME)

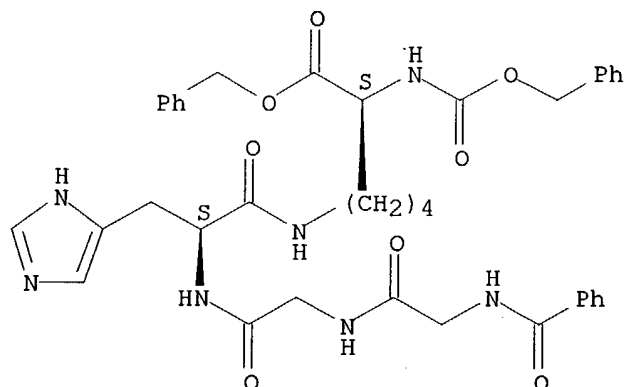
Absolute stereochemistry.



RN 168030-20-4 HCAPLUS

CN L-Lysine, N6-[N-[N-(N-benzoylglycyl)glycyl]-L-histidyl]-N2-[(phenylmethoxy)carbonyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

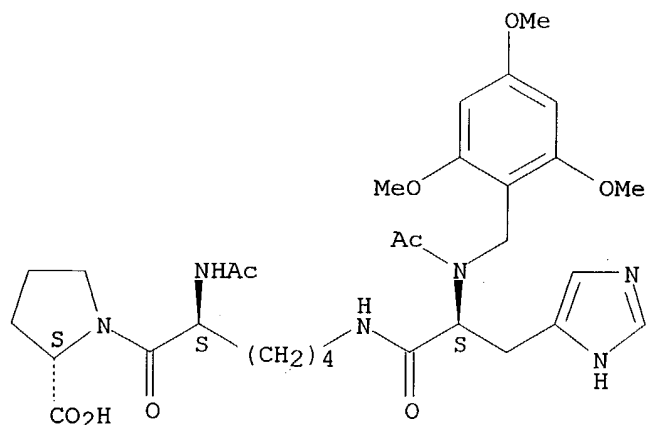
Absolute stereochemistry.



L13 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1995:188909 HCAPLUS  
 DOCUMENT NUMBER: 122:71939  
 TITLE: Application of one-bead one-structure approach to identification of nonpeptidic ligands  
 AUTHOR(S): Stankova, Magda; Issakova, Olga; Sepetov, Nikolai F.; Krchnak, Viktor; Lam, Kit S.; Lebl, Michal  
 CORPORATE SOURCE: Department of Chemistry, Selectide Corp., Tucson, AZ, USA  
 SOURCE: Drug Development Research (1994), 33(2), 146-56  
 CODEN: DDREDK; ISSN: 0272-4391  
 PUBLISHER: Wiley-Liss  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A synthetic chemical library comprised of alkylated and acylated amino acids was synthesized and screened to determine structures that bind to a model target, streptavidin. The library was prepared using "split synthesis" and screened in a solid phase binding assay. The structure of pos. reacting compds. was determined using mass spectroscopy. Pos. compds., together with various structural analogs were synthesized and their binding confirmed. Structures containing both an imidazole moiety and a substituted aromatic residue demonstrated binding.  
 IT 160205-49-2P 160205-50-5P 160205-51-6P  
 160205-54-9P 160205-55-0P 160205-56-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (application of one-bead one-structure approach to identification of nonpeptidic ligands)  
 RN 160205-49-2 HCAPLUS  
 CN L-Proline, 1-[N2-acetyl-N6-[N-acetyl-N-[(2,4,6-trimethoxyphenyl)methyl]-L-histidyl]-L-lysyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

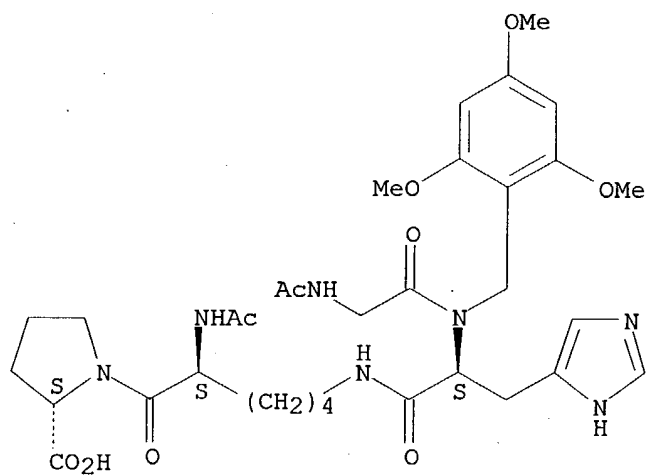
09/857448



RN 160205-50-5 HCAPLUS

CN L-Proline, 1-[N2-acetyl-N6-[N-(N-acetylglycyl)-N-[(2,4,6-trimethoxyphenyl)methyl]-L-histidyl]-L-lysyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



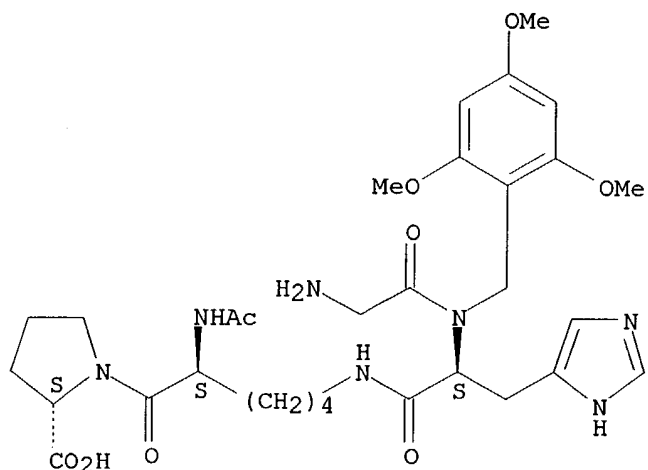
RN 160205-51-6 HCAPLUS

CN L-Proline, 1-[N2-acetyl-N6-[N-glycyl-N-[(2,4,6-trimethoxyphenyl)methyl]-L-histidyl]-L-lysyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



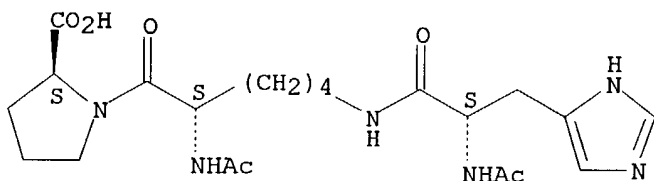
09/857448



RN 160205-54-9 HCAPLUS

CN L-Proline, 1-[N2-acetyl-N6-(N-acetyl-L-histidyl)-L-lysyl]- (9CI)  
(CA INDEX NAME)

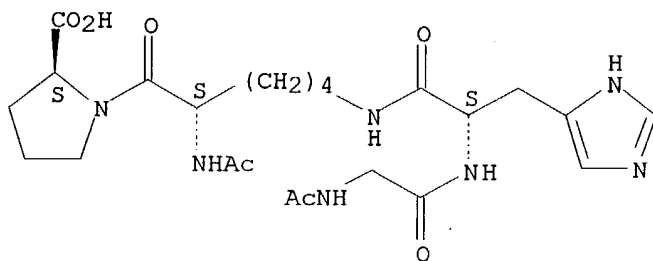
Absolute stereochemistry.



RN 160205-55-0 HCAPLUS

CN L-Proline, 1-[N2-acetyl-N6-[N-(N-acetyl-L-histidyl)-L-lysyl]-L-lysyl]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

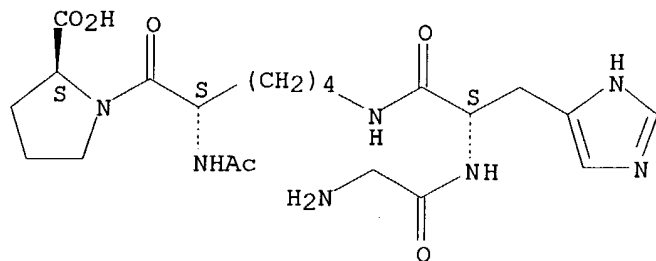


RN 160205-56-1 HCAPLUS

CN L-Proline, 1-[N2-acetyl-N6-(N-glycyl-L-histidyl)-L-lysyl]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

Searcher : Shears 571-272-2528



L13 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:32838 HCAPLUS

DOCUMENT NUMBER: 122:106467

TITLE: New, highly active antagonists of LHRH with acylated lysine and p-aminophenylalanine in positions 5 and 6

AUTHOR(S): Janecka, Anna; Janecki, Tomasz; Bowers, Cyril Y.; Folkers, Karl

CORPORATE SOURCE: Institute Biomedical Research, University Texas, Austin, TX, USA

SOURCE: International Journal of Peptide & Protein Research (1994), 44(1), 19-23  
CODEN: IJPPC3; ISSN: 0367-8377

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of antagonists of the LH releasing hormone (LHRH) with substitutions in position 5 and/or 6 that included acylated lysine or p-aminophenylalanine were synthesized, characterized, and tested for antioviulatory activity (AOA) in rats, and histamine releasing activity. Some of these antagonists were considerably more soluble at neutral pH than antagonists like Antide. Of 37 new antagonists, the best physicochem. and biol. properties were found for the following two analogs: Ac-D-Nal-D-Cpa-D-Pal-Ser-X-D-Lys(Pic-Sar)-Leu-Lys(CHMe2)-Pro-D-Ala-NH2 [I; X = Lys(Pic) (Sartide), Tyr; Nal = 3-(2-naphthyl)alanine, Cpa = 3-(4-chlorophenyl)alanine, Pal = 3-(3-pyridyl)alanine, Pic = picolinoyl]. Both I are soluble in water, inhibit ovulation completely at 0.5 µg per rat, and have ED50 values for histamine release of about 30 µg/mL.

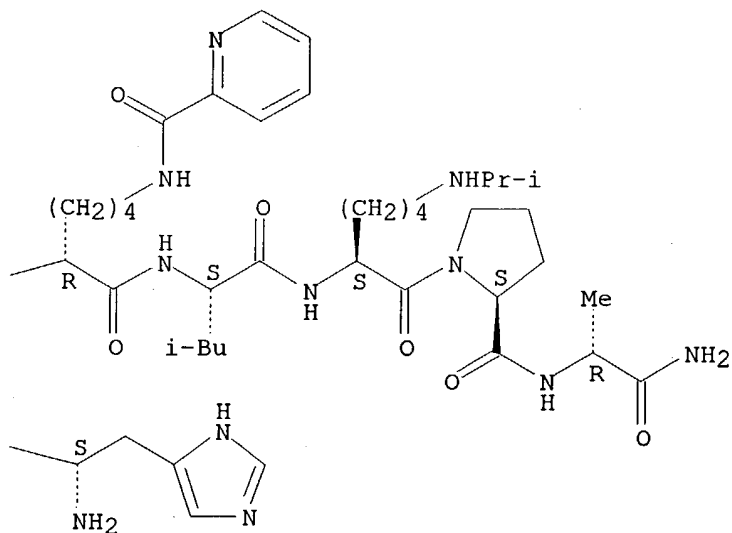
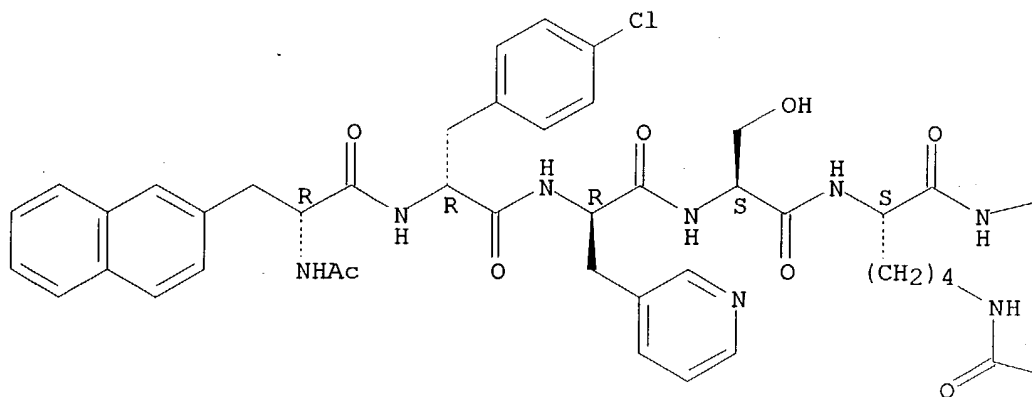
IT 160713-72-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and antioviulatory activity of)

RN 160713-72-4 HCAPLUS

CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-N6-L-histidyl-L-lysyl-N6-(2-pyridinylcarbonyl)-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1994:631313 HCAPLUS  
 DOCUMENT NUMBER: 121:231313  
 TITLE: Design of a simple and flexible dimeric peptide  
 model for DNA recognition and scission  
 AUTHOR(S): Ranganathan, Darshan; Patel, Bhisma Kumar;  
 Mishra, Rakesh  
 CORPORATE SOURCE: Reg. Res. Lab., Trivandrum, 695 019, India  
 SOURCE: Journal of the Chemical Society, Chemical

09/857448

Communications (1994), (1), 107-9  
CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Models, containing sym. dimeric peptide units as the recognition systems, constructed by attaching di, tri and tetra peptide units at the  $\epsilon$ -NH<sub>2</sub> end of the duplex termini in (Lys)<sub>2</sub>Cu, bind to DNA in a sequence specific manner and effect scission at specific sites.

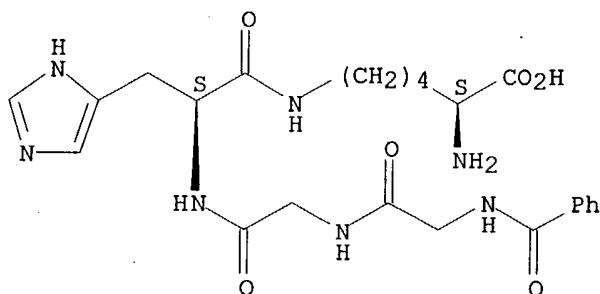
IT 158347-79-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(complexation of, with copper)

RN 158347-79-6 HCAPLUS

CN L-Lysine, N6-[N-[N-(N-benzoylglycyl)glycyl]-L-histidyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:529385 HCAPLUS

DOCUMENT NUMBER: 121:129385

TITLE: Branched hybrid and cluster peptides for diagnosis and detection of non-A, non-B hepatitis

INVENTOR(S): Wang, Chang Yi; Hosein, Barbara

PATENT ASSIGNEE(S): United Biomedical, Inc., USA

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 9406826  | A1   | 19940331 | WO 1993-US8638  | 19930915 |
| W: AU, CA, FI, JP, NO   |      |          |                 |          |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE    |      |          |                 |          |
| US 5582968  | A    | 19961210 | US 1992-946054  | 19920915 |
| AU 9351276  | A1   | 19940412 | AU 1993-51276   | 19930915 |
| EP 662082   | A1   | 19950712 | EP 1993-922189  | 19930915 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE |      |          |                 |          |

Searcher : Shears 571-272-2528

09/857448

|             |    |          |                |          |
|-------------|----|----------|----------------|----------|
| JP 08500122 | T2 | 19960109 | JP 1993-508235 | 19930915 |
| NO 9500977  | A  | 19950314 | NO 1995-977    | 19950314 |
| FI 9501198  | A  | 19950315 | FI 1995-1198   | 19950315 |

PRIORITY APPLN. INFO.:

|                |    |          |
|----------------|----|----------|
| US 1992-946054 | A  | 19920915 |
| US 1990-481348 | B2 | 19900216 |
| US 1990-510153 | A2 | 19900416 |
| US 1990-558799 | A3 | 19900726 |
| US 1991-651735 | A2 | 19910207 |
| US 1991-667275 | B2 | 19910311 |
| US 1991-719819 | A2 | 19910624 |
| US 1991-805374 | A2 | 19911211 |
| WO 1993-US8638 | W  | 19930915 |

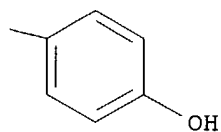
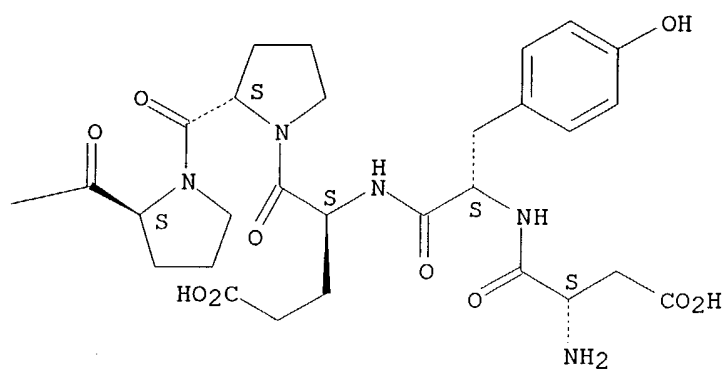
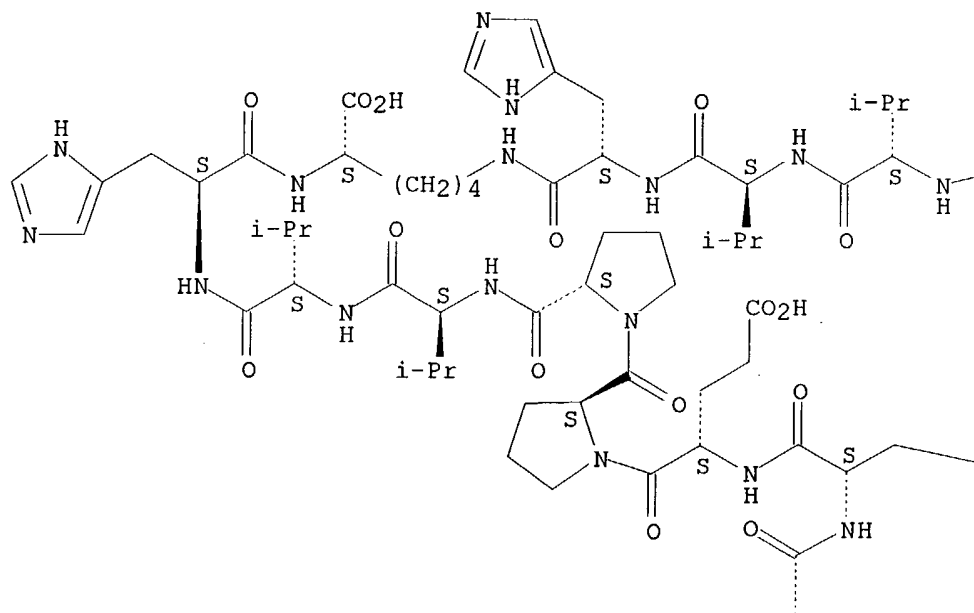
AB Novel synthetic branched peptides carrying antigenic peptides for the diagnosis and prevention of non-A, non-B hepatitis (NANBH), as well as hepatitis C virus (HCV) infection are described. These peptides contain at least one epitope useful in the immunoassay of NANBH-associated antibodies. Immunoassays and kits for the detection and diagnosis of NANBH or HCV infection using these peptides are described. The use of such peptides in immunoassays is demonstrated; the sensitivity of the assay using these peptides is increased.

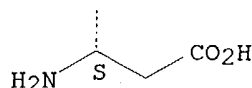
IT 156986-20-8  
RL: ANST (Analytical study)  
(branched peptide containing epitope of hepatitis C virus, for immunoassay of antibodies to virus in diagnosis of non-A, non-B virus)

RN 156986-20-8 HCAPLUS

CN L-Lysine, N2,N6-bis(L- $\alpha$ -aspartyl-L-tyrosyl-L- $\alpha$ -glutamyl-L-prolyl-L-prolyl-L-valyl-L-valyl-L-histidyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L13 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1994:427074 HCAPLUS  
 DOCUMENT NUMBER: 121:27074  
 TITLE: Structure-activity studies of LH-RH antagonists  
 with side-chain modified D-lysine in position 6  
 AUTHOR(S): Tian, Zhen-ping; Zhang, Yong-liang; Kowalczuk,  
 Maria; Hrinyo-Pavlina, Tanya; Edwards, Patrick;  
 Roeske, Roger  
 CORPORATE SOURCE: Dep. Biochem. and Mol. Biol., Indiana Univ. Sch.  
 Med., Indianapolis, IN, 46202-5122, USA  
 SOURCE: Pept.: Biol. Chem., Proc. Chin. Pept. Symp.  
 (1993), Meeting Date 1992, 45-8. Editor(s): Du,  
 Yu-cang; Tam, James P.; Zhang, You-shang.  
 ESCOM: Leiden, Neth.  
 CODEN: 59YOAI  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English

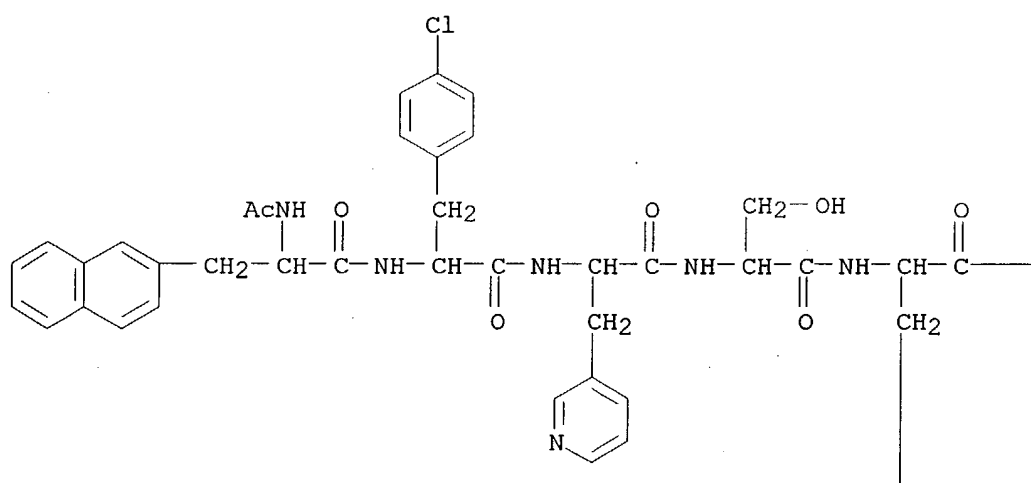
AB Twenty-two LH-RH antagonists were synthesized with a side-chain  
 modified D-lysine in position 6, having the general sequence  
 Ac-D-Nal1-4-Cl-8-Phe2-D-Pal3-Ser-Tyr-D-Lys(X)6-Leu-Lys(iPr)8-  
 Pro-D-Ala-NH2 and were tested for antioviulatory activity and  
 histamine-releasing toxicity. Modification of the D-Lys side chain  
 $\epsilon$ -amino group in position 6 with aromatic moieties produced  
 less active LH-RH antagonists, whereas incorporation of an aromatic  
 heterocyclic moiety with a pos. charge on the ring increased the  
 antioviulatory activity dramatically, although histamine-releasing  
 toxicity was also increased. Replacement of the  $\epsilon$ -amino  
 group of  $\delta$ -lysine with either another primary amino group, a  
 secondary amino group, or a tertiary amino group provided good  
 antioviulatory activity but the histamine-releasing toxicity was not  
 improved. The compds. with pyroglutamic acid or its thio analog  
 attached to D-lysine side-chain showed 90-100% inhibition of  
 ovulation with reasonably low histamine-releasing toxicity.

IT 155944-29-9

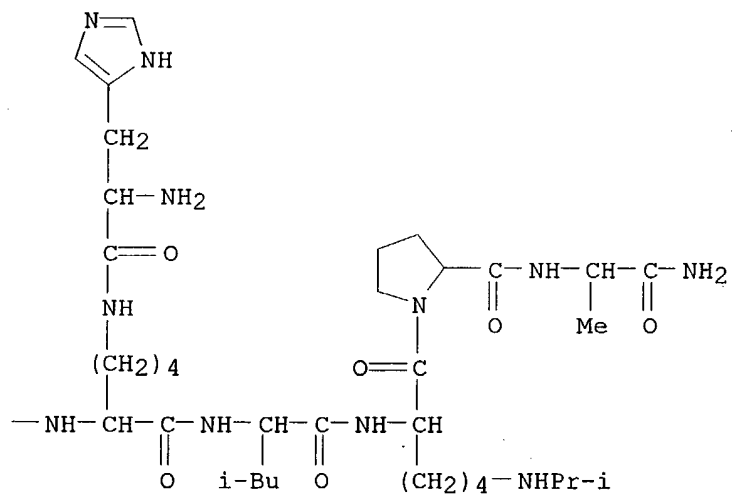
RL: BIOL (Biological study)  
 (antioviulatory activity and histamine-releasing toxicity of,  
 structure in relation to)

RN 155944-29-9 HCAPLUS

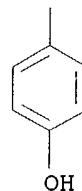
CN D-Alaninamide, N-acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-  
 phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-L-tyrosyl-N6-L-  
 histidyl-D-lysyl-L-leucyl-N6-(1-methylethyl)-L-lysyl-L-prolyl- (9CI)  
 (CA INDEX NAME)



PAGE 1-B







L13 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:454683 HCAPLUS

DOCUMENT NUMBER: 107:54683

TITLE: Analysis of structure-activity relationships in renin substrate analog inhibitory peptides

AUTHOR(S): Hui, Kwan Y.; Carlson, William D.; Bernatowicz, Michael S.; Haber, Edgar

CORPORATE SOURCE: Cardiac Unit, Massachusetts Gen. Hosp., Boston, MA, 02114, USA

SOURCE: Journal of Medicinal Chemistry (1987), 30(8), 1287-95

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

AB On the basis of the minimal octapeptide sequence of renin substrate, a series of peptides was synthesized containing (3S,4S)-4-amino-3-hydroxy-6-methylheptanoic acid (statine) or (3S,4S)-4-amino-3-hydroxy-5-phenylpentanoic acid (AHPPA) at the P1P1' position. Some of these peptides also contained N2n-formyltryptophan at the P5, P3, or P3' position. The renin-inhibitory potency varied over a wide range. The potency was reduced by at least 10-fold when the peptide was shortened by 2 residues at either the N- or C-terminus. The AHPPA-containing inhibitors were several-fold less potent than the statine-containing inhibitors. Anal. of models for the 3-dimensional structure of inhibitors at the active site of human renin suggested that the diminished potency of the AHPPA peptides in comparison with the statine-containing peptides was caused by a shift in the peptide backbone due to a steric conflict between the Ph ring of the AHPPA residue and the S1 subsite. The importance of the side-chain and the 3(S)-hydroxyl group of the statine residue was demonstrated by substituting 5-aminovaleric acid for a dipeptide unit at the P1P1' position, which resulted in a peptide devoid of renin-inhibitory activity. Substitutions of other basic amino acids for histidine at the P2 position caused a great loss in potency, possibly due to disruption of a H-bond as suggested by mol. modeling. Studies on the plasma renins of 4 nonhuman species suggested that the isoleucine-histidine segment at the P2'P3' position is important to defining the human specificity of the substrate. This work suggests a number of properties important to the design of potent renin inhibitors, and demonstrates the usefulness of 3-dimensional models in the interpretation of structure-activity data.

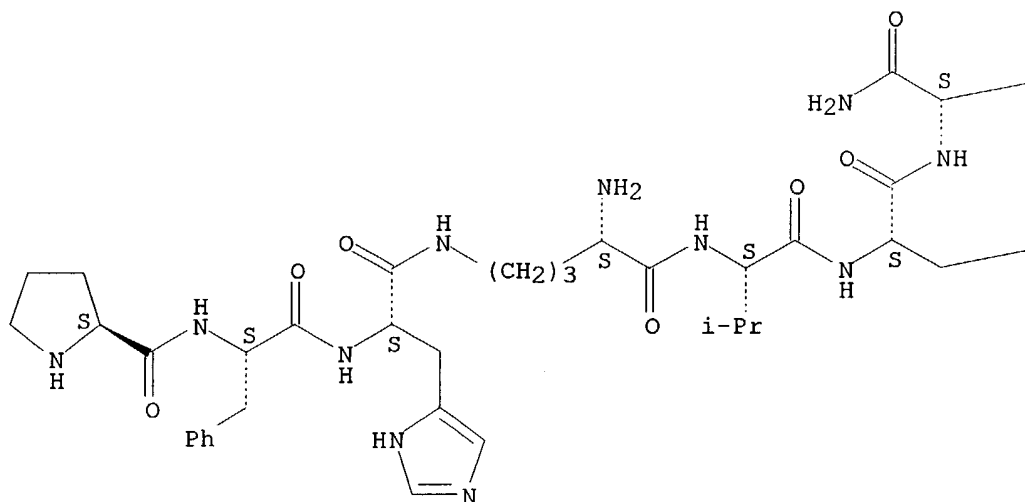
IT 108895-27-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and renin of human blood plasma inhibition by, structure

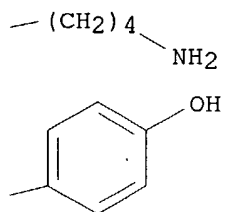
in relation to)  
 RN 108895-27-8 HCAPLUS  
 CN L-Lysinamide, N5-[N-(N-L-prolyl-L-phenylalanyl)-L-histidyl]-L-  
 ornithyl-L-valyl-L-tyrosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L13 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1981:77286 HCAPLUS  
 DOCUMENT NUMBER: 94:77286  
 TITLE: Structure-activity studies on hypothalamic  
 hormones: recent developments  
 AUTHOR(S): Coy, David H.; Mezo, Imre; Pedroza, Escipion;  
 Nekola, Mary V.; Schally, Andrew V.; Murphy,  
 William; Meyers, Chester A.  
 CORPORATE SOURCE: Sch. Med., Tulane Univ., New Orleans, LA, 70112,  
 USA  
 SOURCE: Miles International Symposium Series (1980),

12 (Polypept. Horm.), 185-92  
 CODEN: MSSEDP; ISSN: 0363-4698

DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The ovulation-inhibiting activity of a number of dimeric and substituted LH-RH analogs and the growth hormone [9002-72-6] release-inhibiting activity of a number of somatostatin analogs is presented along with a discussion of the possible clin. importance of such compds.

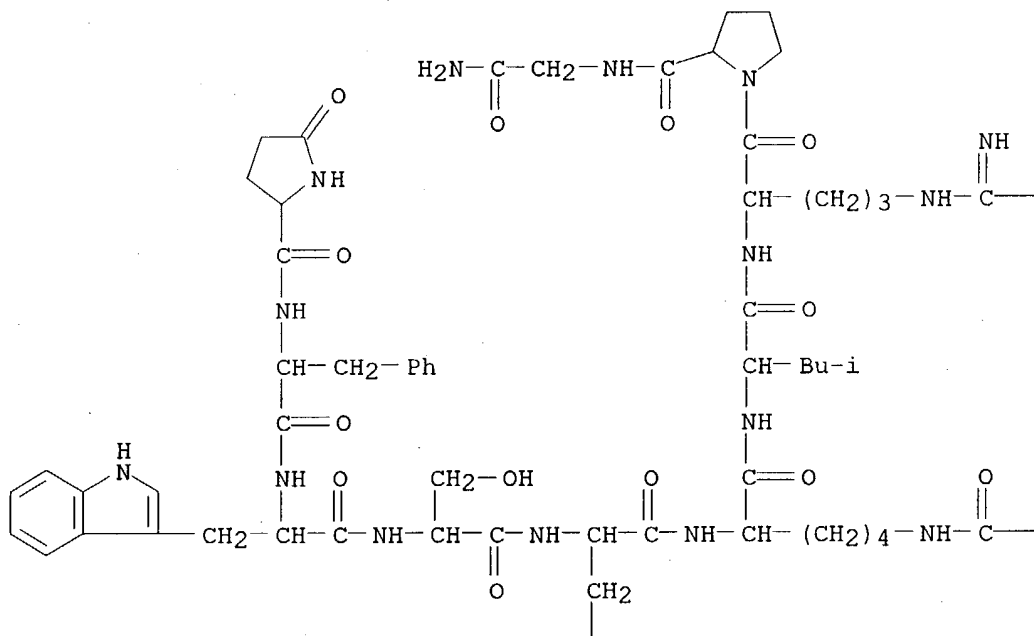
IT 65513-88-4

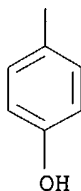
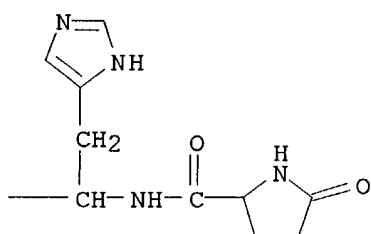
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (ovulation inhibition by, structure in relation to)

RN 65513-88-4 HCAPLUS

CN Glycinamide, 5-oxo-L-prolyl-D-phenylalanyl-D-tryptophyl-L-seryl-L-tyrosyl-N6-[N-(5-oxo-L-prolyl)-L-histidyl]-D-lysyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)

PAGE 1-A



—NH<sub>2</sub>

L13 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1979:587322 HCAPLUS  
 DOCUMENT NUMBER: 91:187322  
 TITLE: Growth-modulating human plasma tripeptide:  
 relationship between molecular structure and DNA  
 synthesis in hepatoma cells  
 AUTHOR(S): Pickart, Loren; Thaler, M. Michael  
 CORPORATE SOURCE: Liver Cent., Univ. California, San Francisco,  
 CA, 94143, USA  
 SOURCE: FEBS Letters (1979), 104(1), 119-22  
 CODEN: FEBLAL; ISSN: 0014-5793  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Gly-his-lys (I) [49557-75-7] (2-2000 ng/mL) increased DNA formation  
 in hepatoma cells 1.5-5.1-fold; among 9 analogs tested,  
 gly-his-lys-his [71752-71-1], his-lys-gly [62024-09-3], and to a  
 lesser degree gly-his-orn [71752-72-2] had comparable activities.  
 Deletion of the terminal glycine from I essentially eliminated

09/857448

activity. Apparently, the his-lys sequence and glycine in either terminal position are essential for activity.

IT 71752-73-3

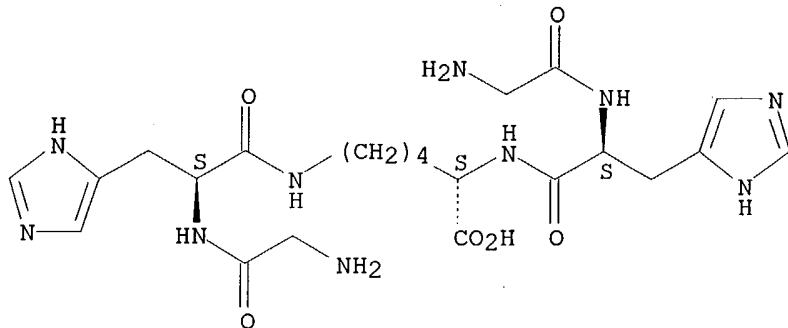
RL: PRP (Properties)

(DNA formation response to, in hepatoma cells)

RN 71752-73-3 HCAPLUS

CN L-Lysine, N2,N6-bis(N-glycyl-L-histidyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L13 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1978:83808 HCAPLUS

DOCUMENT NUMBER: 88:83808

TITLE: Branched-chain analogs of luteinizing hormone-releasing hormone

AUTHOR(S): Seprodi, Janos; Coy, David H.; Vilchez-Martinez, Jesus A.; Pedroza, Escipion; Schally, Andrew V.  
CORPORATE SOURCE: Dep. Med., Tulane Univ. Sch. Med., New Orleans, LA, USA

SOURCE: Journal of Medicinal Chemistry (1978), 21(3), 276-80

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

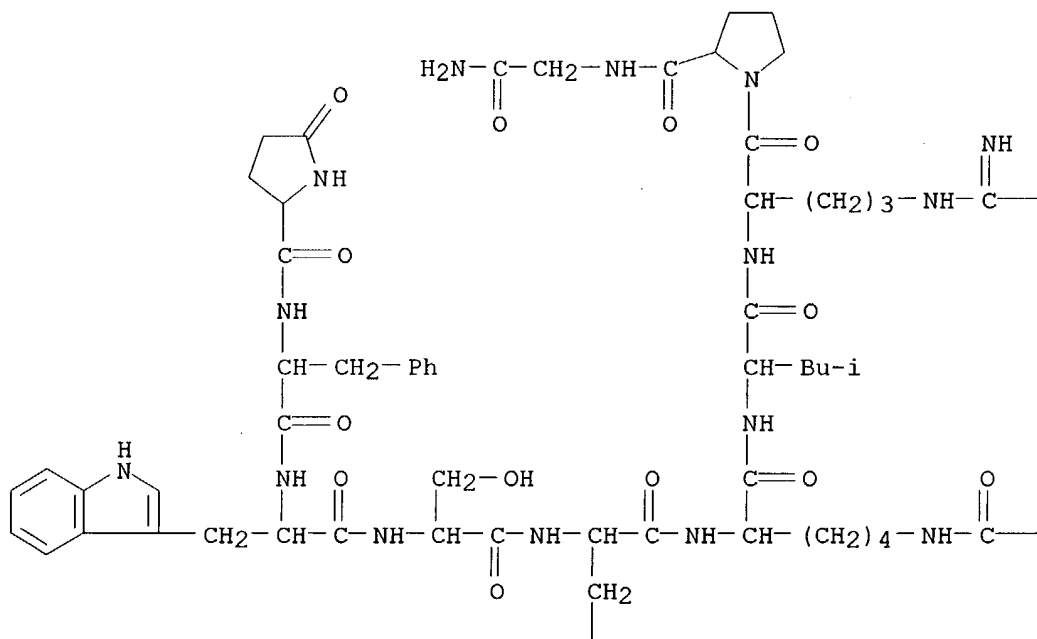
AB The LH-releasing hormone analog [D-Phe2,D-Trp3,D-Lys6]-LH-releasing hormone (I) [65360-23-8] was prepared by solid-phase synthesis and modified by acylation or solid-phase synthesis to give I derivs. containing the benzoyl, acetylsalicylyl, indomethacinylyl, pyroglutamylhistidyl (pGlu-His), and pGlu-D-Phe-D-Trp-Ser-Tyr groups attached to the epsilon-amino group of the D-lysine residue. Incorporation of the pentapeptide sequence gave a pentadecapeptide [D-Phe2,D-Trp3,Nepsilon-(pGlu-D-Phe-D-Trp-Ser-Tyr)-D-Lys6]-LH-releasing hormone [65482-77-1] with LH-releasing hormone antagonist activity similar to [D-Phe2,D-Trp3,D-Phe6]-LH-releasing hormone in male rats and antiovaratory activity in rats greater than any other analog thus far tested. Also prepared was [Nepsilon-(pGlu-His-Trp-Ser-Tyr)-D-Lys6]-LH-releasing hormone [65482-78-2], which had only 4 times the LH- and FSH-releasing activity of LH-releasing hormone in rats, or about the same potency as [D-Lys6]-LH-releasing hormone.

IT 65513-88-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

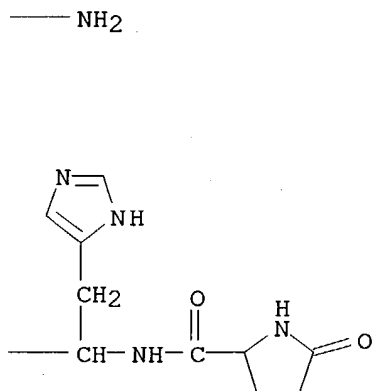
(preparation and antiLH-releasing hormone and ovulation inhibiting activity of)  
 RN 65513-88-4 HCAPLUS  
 CN Glycinamide, 5-oxo-L-prolyl-D-phenylalanyl-D-tryptophyl-L-seryl-L-tyrosyl-N6-[N-(5-oxo-L-prolyl)-L-histidyl]-D-lysyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)

PAGE 1-A

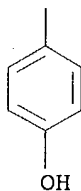


09/857448

PAGE 1-B



PAGE 2-A



=> sel hit l13 1-18 rn  
E1 THROUGH E32 ASSIGNED

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160205-49-2/BI OR 160205-50-5/BI OR 160205-51-6/BI OR  
160205-54-9/BI OR 160205-55-0/BI OR 160205-56-1/BI OR  
160713-72-4/BI OR 163334-86-9/BI OR 163437-74-9/BI OR  
168030-20-4/BI OR 191742-06-0/BI OR 210166-15-7/BI OR  
213135-24-1/BI OR 213185-06-9/BI OR 213185-07-0/BI OR  
213185-08-1/BI OR 213185-11-6/BI OR 415696-39-8/BI OR  
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473931-68-9/BI OR 473931-73-6/BI OR 551929-37-4/BI OR  
71752-73-3/BI)

FILE 'CAOLD' ENTERED AT 09:49:20 ON 08 MAR 2004

L15 0 S L14

Searcher : Shears 571-272-2528

09/857448

FILE 'USPATFULL' ENTERED AT 09:49:26 ON 08 MAR 2004

L16 2 S L14

L16 ANSWER 1 OF 2 USPATFULL on STN

ACCESSION NUMBER: 97:118014 USPATFULL  
TITLE: 6-position modified decapeptide LHRH antagonists  
INVENTOR(S): Haviv, Fortuna, Deerfield, IL, United States  
Fitzpatrick, Timothy D., Salem, OR, United States  
Swenson, Rolf E., Grayslake, IL, United States  
Nichols, Charles J., Greendale, WI, United States  
Mort, Nicholas A., Waukegan, IL, United States  
Greer, Jonathan, Chicago, IL, United States  
PATENT ASSIGNEE(S): Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)

|                       | NUMBER  | KIND | DATE                     |
|-----------------------|---|------|--------------------------|
| PATENT INFORMATION:   | US 5698522  |      | 19971216                 |
|                       | WO 9413313  |      | 19940623                 |
| APPLICATION INFO.:    | US 1995-446809  |      | 19950601 (8)             |
|                       | WO 1993-US11628   |      | 19931130                 |
|                       |   |      | 19950601 PCT 371 date    |
|                       |   |      | 19950601 PCT 102(e) date |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1992-987921, filed on 4 Dec 1992, now abandoned |      |                          |
| DOCUMENT TYPE:        | Utility   |      |                          |
| FILE SEGMENT:         | Granted   |      |                          |
| PRIMARY EXAMINER:     | Tsang, Cecilia J.   |      |                          |
| ASSISTANT EXAMINER:   | Gupta, Anish  |      |                          |
| LEGAL REPRESENTATIVE: | Anand, Mona   |      |                          |
| NUMBER OF CLAIMS:     | 6   |      |                          |
| EXEMPLARY CLAIM:      | 1   |      |                          |
| LINE COUNT:           | 2497  |      |                          |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a class of decapeptide compounds which are potent antagonists of LHRH activity and which have the structure A.sup.1 -D.sup.2 -E.sup.3 -G.sup.4 -J.sup.5 -L.sup.6 -M.sup.7 -Q.sup.8 -R.sup.9 -T.sup.10. The compounds of the present invention are characterized by having an  $\Omega$ -amino-functionalized side chain on the D-aminoacyl residue at position 6. The  $\Omega$ -amino group of this side chain is further derivatized by the attachment of an extending group which likewise has a terminal amino group which is capped by an acyl group.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 2 USPATFULL on STN

ACCESSION NUMBER: 96:113770 USPATFULL  
TITLE: Branched hybrid and cluster peptides effective in diagnosing and detecting non-A, non-B hepatitis  
INVENTOR(S): Wang, Chang-Yi, Great Neck, NY, United States  
Hosein, Barbara H., New York, NY, United States  
PATENT ASSIGNEE(S): United Biomedical, Inc., Hauppauge, NY, United States (U.S. corporation)

Searcher : Shears 571-272-2528



09/857448

|                       | NUMBER  | KIND | DATE         |
|-----------------------|---|------|--------------|
| PATENT INFORMATION:   | US 5582968  |      | 19961210     |
| APPLICATION INFO.:    | US 1992-946054  |      | 19920915 (7) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1991-719819, filed on 24 Jun 1991 which is a continuation-in-part of Ser. No. US 1991-667275, filed on 11 Mar 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-651735, filed on 7 Feb 1991 And a continuation-in-part of Ser. No. US 1991-805374, filed on 11 Dec 1991, now patented, Pat. No. US 5436126 which is a division of Ser. No. US 1990-558799, filed on 26 Jul 1990, now patented, Pat. No. US 5106726 which is a continuation-in-part of Ser. No. US 1990-510153, filed on 16 Apr 1990 which is a continuation-in-part of Ser. No. US 1990-481348, filed on 16 Feb 1990, now abandoned |      |              |
| DOCUMENT TYPE:        | Utility   |      |              |
| FILE SEGMENT:         | Granted   |      |              |
| PRIMARY EXAMINER:     | Woodward, Michael P.  |      |              |
| LEGAL REPRESENTATIVE: | Morgan & Finnegan, L.L.P.   |      |              |
| NUMBER OF CLAIMS:     | 21  |      |              |
| EXEMPLARY CLAIM:      | 1   |      |              |
| LINE COUNT:           | 840   |      |              |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel branched peptides specific for the diagnosis and prevention of non-A, non-B hepatitis (NANBH), as well as hepatitis C virus (HCV) infection. More particularly, the present invention is directed to branched synthetic substituted and hybrid peptides containing at least one epitope which is effective in detecting NANBH-associated antibodies in patients with NANBH using immunoassay techniques. In addition, this invention provides immunoassays for the detection and diagnosis of NANBH using the subject peptides, vaccine compositions for prevention and treatment of NANBH or HCV infection as well as a method of treating or preventing NANBH and HCV infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

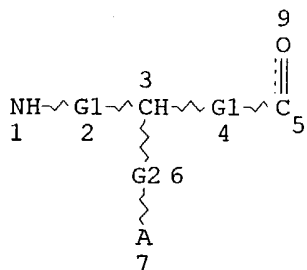
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Searcher : Shears 571-272-2528

09/857448

(FILE 'REGISTRY' ENTERED AT 09:45:22 ON 08 MAR 2004)

L1 STR



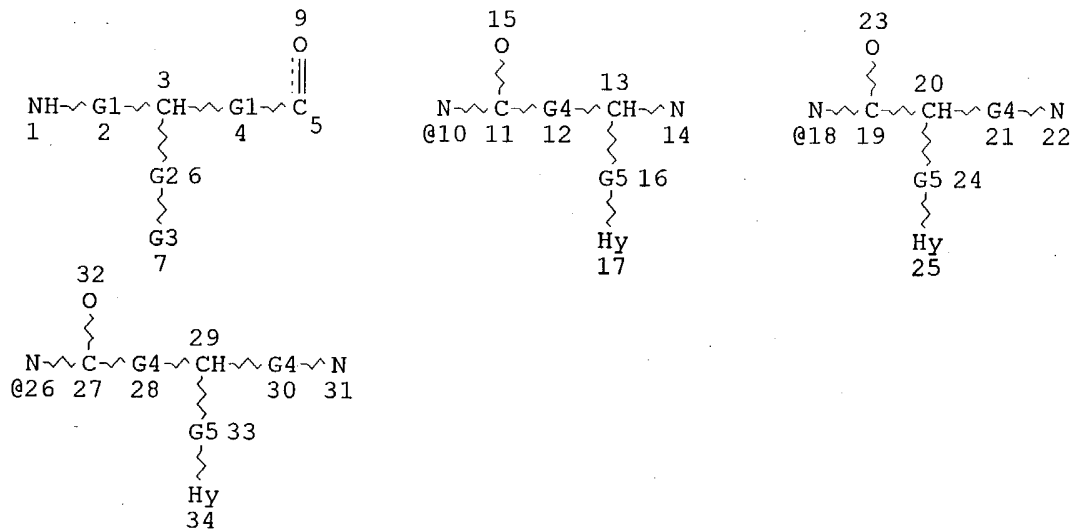
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claim 25

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L2 SCR 2043 ← Polymer screen  
L3 11638 SEA FILE=REGISTRY SSS FUL L1 AND L2  
L5 STR



REP G1=(0-10) CH2  
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VAR G3=10/18/26  
REP G4=(0-6) CH2  
REP G5=(1-6) CH2  
NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM

09/857448

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE

L6 6 SEA FILE=REGISTRY SUB=L3 SSS FUL L5

100.0% PROCESSED 11472 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.02

FILE 'HCAPLUS' ENTERED AT 09:45:54 ON 08 MAR 2004

L7 3 S L6

L7 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:384398 HCAPLUS

DOCUMENT NUMBER: 133:27336

TITLE: Histidylated oligolysines increase the transmembrane passage and the biological activity of antisense oligonucleotides

INVENTOR(S): Midoux, Patrick; Pichon, Chantal; Bello-Roufai, Mahajoub; Monsigny, Michel

PATENT ASSIGNEE(S): I.D.M. Immuno-Designed Molecules, Fr.

SOURCE: PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE       |
|--|------|----------|-----------------|------------|
| WO 2000032764  | A1   | 20000608 | WO 1999-EP8980  | 19991122   |
| W:   |      |          |                 |            |
| AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW:  |      |          |                 |            |
| GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |      |          |                 |            |
| EP 1135481   | A1   | 20010926 | EP 1999-959296  | 19991122   |
| EP 1135481   | B1   | 20040225 |                 |            |
| R:   |      |          |                 |            |
| AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO   |      |          |                 |            |
| JP 2002532388  | T2   | 20021002 | JP 2000-585395  | 19991122   |
| PRIORITY APPLN. INFO.:   |      |          | EP 1998-403015  | A 19981202 |
|  |      |          | WO 1999-EP8980  | W 19991122 |

AB The invention relates to a pos. charged oligomeric conjugate, containing an oligomer with a d.p. from 5 to 50, preferably 10 to 40 and more preferably 20, formed from monomeric components having free NH3+ in a number equal to or higher than 50% of the polymerization degree. In particular, the invention provides new oligomeric conjugates of histidylated oligolysine liable to allow the transfer of

Searcher : Shears 571-272-2528

oligonucleotides, peptides and oligosides into cells. Histidylated oligolysines are designed which increase the uptake, the cytosolic delivery, and the nuclear accumulation of antisense oligonucleotides (ODN). Flow cytometry anal. showed a 10-fold enhancement of the ODN uptake in the presence of histidylated oligolysines. The intracellular localizations of fluorescein-labeled ODN and of rhodamine-labeled histidylated oligolysines were investigated by confocal microscopy. Histidylated oligolysines favor the cytosolic delivery of ODN from endosomes and increase their nuclear accumulation. In contrast, in their absence fluorescent ODN were not observed inside the nucleus but were distributed overwhelmingly within the vesicles in the cytosol. In addition, histidylated oligolysines yielded a more than 20-fold enhancement of the biol. activity of antisense ODN towards the inhibition of transient as well as constitutive gene expression.

IT 266321-10-2P 266321-11-3P 266321-13-5P  
273917-93-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(histidylated oligolysines increase the transmembrane passage and the biol. activity of antisense oligonucleotides)

RN 266321-10-2 HCAPLUS

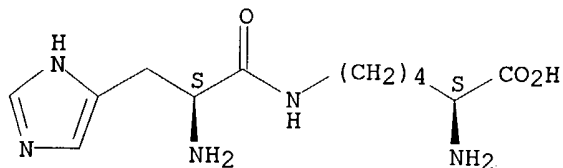
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CRN 266321-09-9

CMF C12 H21 N5 O3

Absolute stereochemistry.



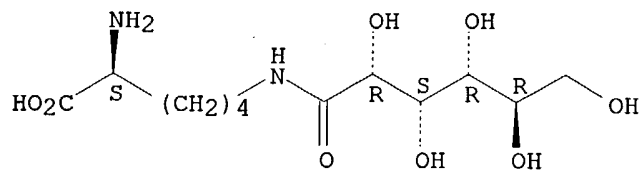
CM 2

CRN 94071-01-9

CMF C12 H24 N2 O8

Absolute stereochemistry.

09/857448

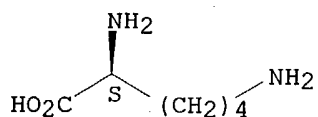


CM 3

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



RN 266321-11-3 HCAPLUS

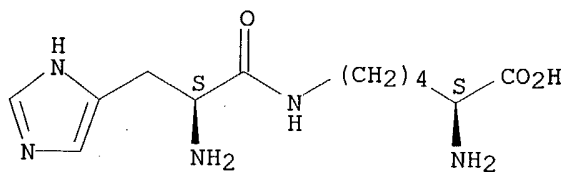
CN L-Lysine, N6-L-histidyl-, polymer with N6-acetyl-L-lysine and L-lysine (9CI) (CA INDEX NAME)

CM 1

CRN 266321-09-9

CMF C12 H21 N5 O3

Absolute stereochemistry.

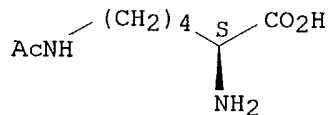


CM 2

CRN 692-04-6

CMF C8 H16 N2 O3

Absolute stereochemistry.



Searcher : Shears 571-272-2528

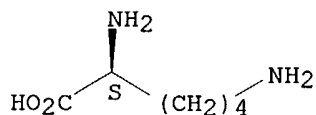
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CM 3

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



RN 266321-13-5 HCAPLUS

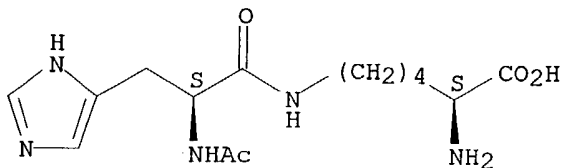
CN L-Lysine, N6-(N-acetyl-L-histidyl)-, polymer with N6-acetyl-L-lysine and L-lysine (9CI) (CA INDEX NAME)

CM 1

CRN 266321-12-4

CMF C14 H23 N5 O4

Absolute stereochemistry.

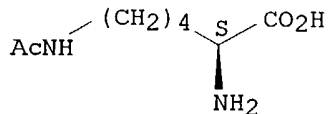


CM 2

CRN 692-04-6

CMF C8 H16 N2 O3

Absolute stereochemistry.



CM 3

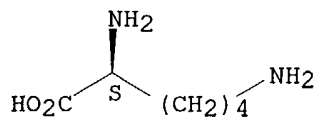
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Absolute stereochemistry.

Searcher : Shears 571-272-2528

09/857448

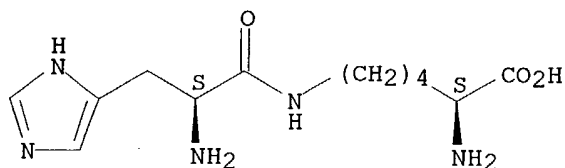


RN 273917-93-4 HCAPLUS  
CN L-Lysine, N6-L-histidyl-, polymer with L-leucine (9CI) (CA INDEX NAME)

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CRN 266321-09-9  
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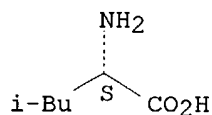
Absolute stereochemistry.



CM 2

CRN 61-90-5  
CMF C6 H13 N O2

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2000:100762 HCAPLUS  
DOCUMENT NUMBER: 132:303975  
TITLE: Histidylated oligolysines increase the transmembrane passage and the biological activity of antisense oligonucleotides  
AUTHOR(S): Pichon, Chantal; Roufai, Mahajoub Bello; Monsigny, Michel; Midoux, Patrick  
CORPORATE SOURCE: Centre de Biophysique Moleculaire, Glycobiologie, CNRS UPR4301 and University of Orleans, Orleans, F-45071, Fr.  
SOURCE: Nucleic Acids Research (2000), 28(2), 504-512

Searcher : Shears 571-272-2528

CODEN: NARHAD; ISSN: 0305-1048  
 PUBLISHER: Oxford University Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB We have designed histidylated oligolysines which increase the uptake, the cytosolic delivery and the nuclear accumulation of antisense oligonucleotides (ODN). Flow cytometry anal. showed a 10-fold enhancement of the ODN uptake in the presence of histidylated oligolysines. The intracellular localizations of fluorescein-labeled ODN and of rhodamine-labeled histidylated oligolysines were investigated by confocal microscopy. Histidylated oligolysines favor the cytosolic delivery of ODN from endosomes and increase their nuclear accumulation. In contrast, in their absence fluorescent ODN were not observed inside the nucleus but were distributed overwhelmingly within the vesicles in the cytosol. In addition, histidylated oligolysines yielded a more than 20-fold enhancement of the biol. activity of antisense ODN towards the inhibition of transient as well as constitutive gene expression. Prevention of endosome lumen acidification using bafilomycin A1 abolished the effect of histidylated oligolysines, suggesting that protonation of the histidyl residues was involved in the transmembrane passage of ODN.

IT 266321-10-2P 266321-11-3P 266321-13-5P

RL: BPR (Biological process); BSU (Biological study, unclassified);  
 BUU (Biological use, unclassified); SPN (Synthetic preparation);  
 BIOL (Biological study); PREP (Preparation); PROC (Process); USES  
 (Uses)

(histidylated oligolysines increase the transmembrane passage and  
 the biol. activity of antisense oligonucleotides)

RN 266321-10-2 HCAPLUS

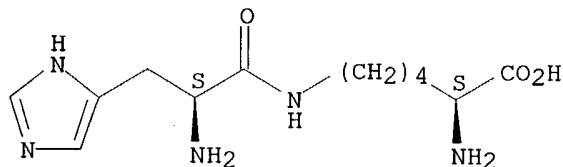
CN L-Lysine, N6-L-histidyl-, polymer with N6-D-gluconoyl-L-lysine and  
 L-lysine (9CI) (CA INDEX NAME)

CM 1

CRN 266321-09-9

CMF C12 H21 N5 O3

Absolute stereochemistry.



CM 2

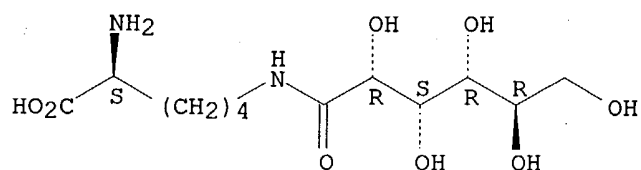
CRN 94071-01-9

CMF C12 H24 N2 O8

Absolute stereochemistry.



09/857448

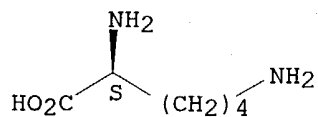


CM 3

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



RN 266321-11-3 HCAPLUS

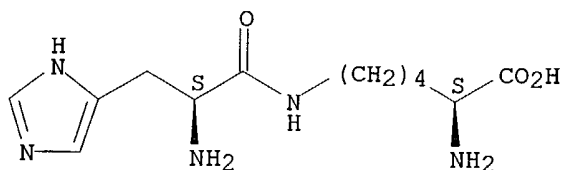
CN L-Lysine, N6-L-histidyl-, polymer with N6-acetyl-L-lysine and L-lysine (9CI) (CA INDEX NAME)

CM 1

CRN 266321-09-9

CMF C12 H21 N5 O3

Absolute stereochemistry.

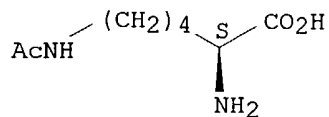


CM 2

CRN 692-04-6

CMF C8 H16 N2 O3

Absolute stereochemistry.



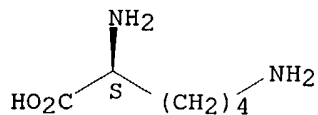
09/857448

CM 3

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



RN 266321-13-5 HCAPLUS

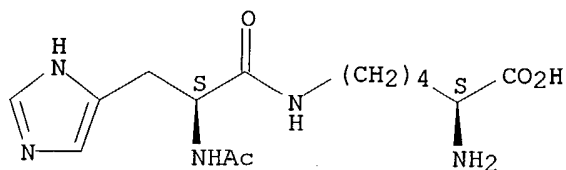
CN L-Lysine, N6-(N-acetyl-L-histidyl)-, polymer with N6-acetyl-L-lysine and L-lysine (9CI) (CA INDEX NAME)

CM 1

CRN 266321-12-4

CMF C14 H23 N5 O4

Absolute stereochemistry.

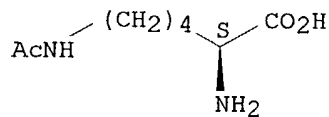


CM 2

CRN 692-04-6

CMF C8 H16 N2 O3

Absolute stereochemistry.

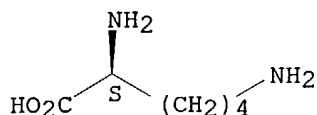


CM 3

CRN 56-87-1

CMF C6 H14 N2 O2

Absolute stereochemistry.



*Ordered 4/22/04*

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L7 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1984:2402 HCAPLUS

DOCUMENT NUMBER: 100:2402

TITLE: Macromolecularization of a tripeptide analog of the copper(II) binding site of human serum albumin. I. Synthesis, conformation, and binding properties of a Gly-Gly-His derivative of poly(L-lysine)

AUTHOR(S): Michielin, L.; Mammi, S.; Peggion, E.

CORPORATE SOURCE: Inst. Org. Chem., Univ. Padova, Padua, 35131, Italy

SOURCE: Biopolymers (1983), 22(11), 2325-9

CODEN: BIPMAA; ISSN: 0006-3525

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Gly-Gly-His, a tripeptide analog of the Cu<sup>2+</sup>-binding site of human serum albumin, was covalently attached to poly(L-lysine), and the conformation and Cu<sup>2+</sup>-binding properties of the resulting compound were investigated by CD. By changing the rel. ratios of reactants (carbobenzoxylglycylglycylhistidine hydrazide and polylysine), polymer samples with 35-70% side chain modification were obtained. For samples with 53% modification, CD patterns in the pH range 3-9 are typical of the random-coil structure. At pH ≥ 11, the CD spectrum indicates that the α-helix conformation predominates. In the presence of stoichiometric amts. of Cu<sup>2+</sup> at pH 4.6, complex formation appears to be essentially complete, since no spectral change is induced by addition of 20% excess metal ions or by increasing the pH to 7.4. Within this pH range, complex formation involving unmodified lysine amino groups can be excluded, and Cu<sup>2+</sup> is bound only to side-chain tripeptide units. The CD pattern is consistent with coordination of 1 imidazole N and 2 deprotonated imidazole N atoms with Cu<sup>2+</sup>.

IT 88190-65-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and conformation and copper-binding properties of)

RN 88190-65-2 HCAPLUS

CN L-Lysine, N6-[N-(N-glycylglycyl)-L-histidyl]-, homopolymer (9CI)  
(CA INDEX NAME)

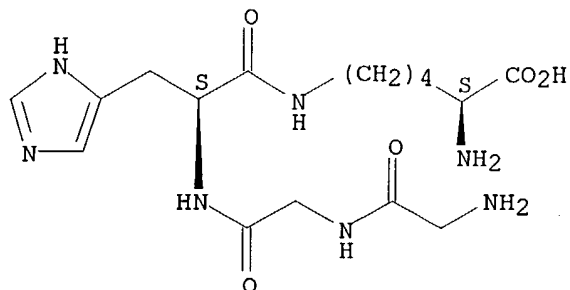
CM 1

CRN 88190-64-1

CMF C16 H27 N7 O5

Absolute stereochemistry.

09/857448



IT 88190-63-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
RACT (Reactant or reagent)  
(preparation and deprotection of)

RN 88190-63-0 HCAPLUS

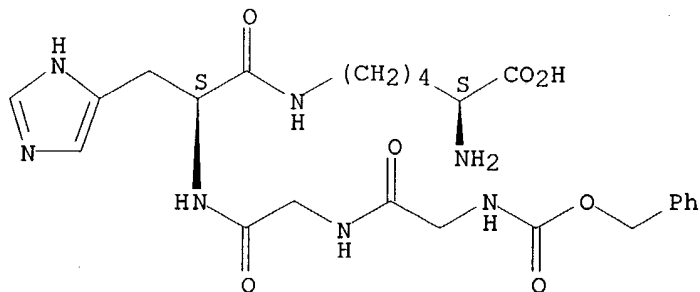
CN L-Lysine, N6-[N-[N-[N-[(phenylmethoxy)carbonyl]glycyl]glycyl]-L-histidyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 88190-62-9

CMF C24 H33 N7 O7

Absolute stereochemistry.

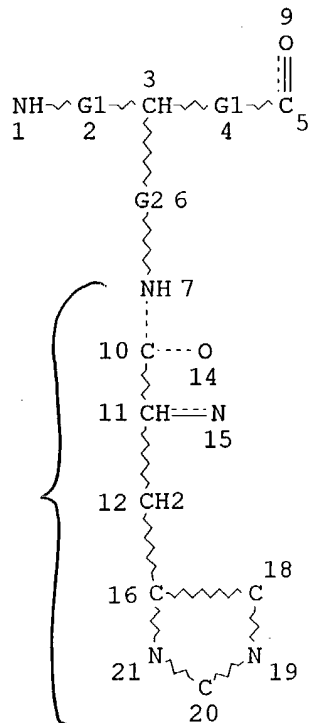


L8 FILE 'CAOLD' ENTERED AT 09:46:20 ON 08 MAR 2004  
0 S L6

L9 FILE 'USPATFULL' ENTERED AT 09:46:24 ON 08 MAR 2004  
0 S L6

L10 (FILE 'REGISTRY' ENTERED AT 09:47:28 ON 08 MAR 2004)  
STR

claim 27

 $n' = n'' = \emptyset$ 

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 NODE ATTRIBUTES:  
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE  
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100.0% PROCESSED 149308 ITERATIONS  
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43 ANSWERS

FILE 'HCAPLUS' ENTERED AT 09:47:44 ON 08 MAR 2004  
 L12 21 S L11  
 L13 18 S L12 NOT L7

L13 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:331560 HCAPLUS

DOCUMENT NUMBER: 139:69512

TITLE: Extending the Applicability of  
 Carboxyfluorescein in Solid-Phase Synthesis

AUTHOR(S): Fischer, Rainer; Mader, Oliver; Jung, Guenther;  
 Brock, Roland

CORPORATE SOURCE: Institute for Cell Biology, University of

SOURCE: Tuebingen, Tuebingen, 72076, Germany  
Bioconjugate Chemistry (2003), 14(3), 653-660  
CODEN: BCCHEs; ISSN: 1043-1802

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:69512

AB Optimized coupling protocols are presented for the efficient and automated generation of carboxyfluorescein-labeled peptides. Side products, generated when applying earlier protocols for the in-situ activation of carboxyfluorescein, were eliminated by a simple procedure, yielding highly pure fluorescent peptides and minimizing post-synthesis workup. For the cost-efficient labeling of large compound collections, coupling protocols were developed reducing the amount of coupling reagent and fluorophore. To enable further chemical derivatization of carboxyfluorescein-labeled peptides in solid-phase synthesis, the on-resin introduction of the trityl group was devised as a protecting group strategy for carboxyfluorescein. This protecting group strategy was exploited for the synthesis of peptides labeled with two different fluorescent dyes, essential tools for bioanal. applications based on fluorescence resonance energy transfer (FRET). Tritylation and optimized labeling conditions led to the development of a fluorescein-preloaded resin for the automated synthesis of fluorescein-labeled compound collections with uniform labeling yields.

IT 551929-37-4P

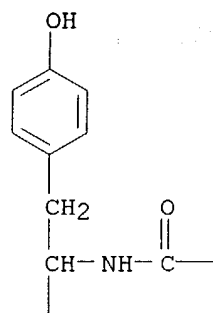
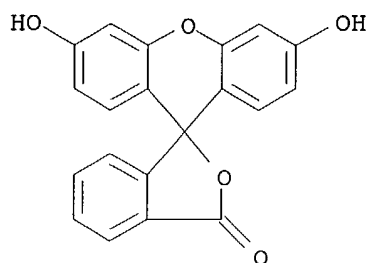
RL: SPN (Synthetic preparation); PREP (Preparation)  
(solid-phase synthesis of fluorescein-labeled peptides using Rink amide resin and trityl protecting groups)

RN 551929-37-4 HCAPLUS

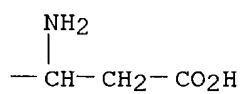
CN L-Lysinamide, N6-(L- $\alpha$ -aspartyl-L-tyrosylglycyl-L-isoleucyl-L-prolyl-L-alanyl-L- $\alpha$ -aspartyl-L-histidyl)-N2-[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]carbonyl]-(9CI) (CA INDEX NAME)

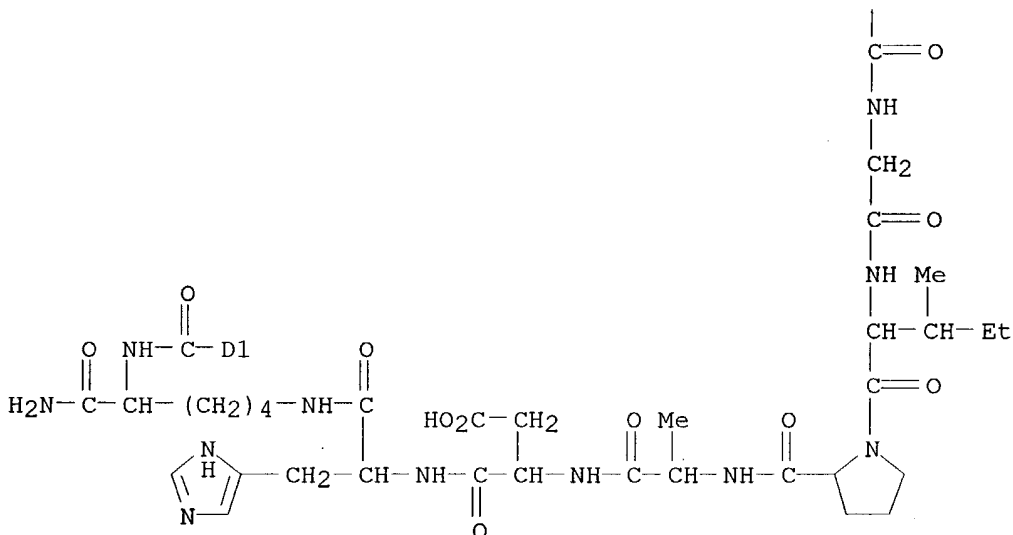
09/857448

PAGE 1-A



PAGE 1-B





REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L13 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:832658 HCAPLUS

DOCUMENT NUMBER: 137:334689

TITLE: Tc and Re labeler radioactive glycosylated  
octreotide derivatives

INVENTOR(S): Wester, Hans-Jurgen; Schottelius, Margret;  
Schwaiger, Markus

PATENT ASSIGNEE(S): Mallinckrodt Inc., USA

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| WO 2002085418 | A2   | 20021031 | WO 2002-US12565 | 20020423 |
| WO 2002085418 | A3   | 20030912 |                 |          |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG



EP 1381396 A2 20040121 EP 2002-723932 20020423

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:

EP 2001-201466 A 20010423

WO 2002-US12565 W 20020423

AB Improved sst-receptor binding peptidic ligands for diagnostic and therapeutic applications in nuclear medicine are provided. The improved ligands contain either natural or unnatural amino acids or peptidomimetic structures that are modified at either the N-terminal or the C-terminal end or at both termini, a carbohydrate unit and a chelator or prosthetic group to provide a complexation of a radioisotope binding or holding the radioisotope. The sst- or SSTR-receptor binding peptidic ligands may also contain one or more multifunctional linker units optionally coupling the peptide, and/or the sugar moiety and/or the chelator and/or the prosthetic group. Upon administering the ligand to a mammal through the blood system the ligand provides improved availability, clearance kinetics, sst-receptor targeting and internalization over the non-carbohydrated ligands.

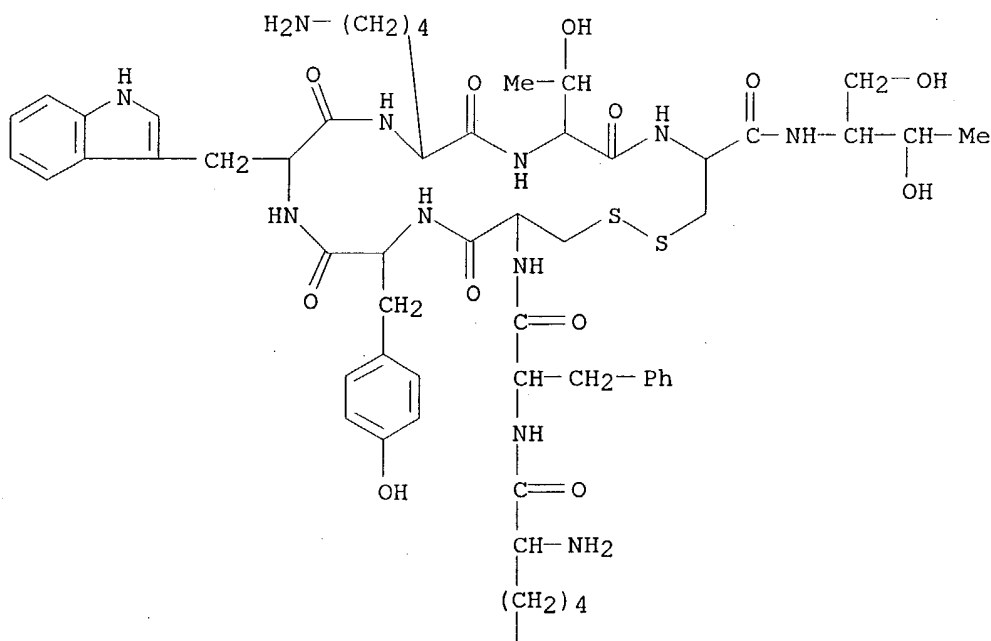
IT 473931-73-6D, conjugates with glucose/maltotriose, technetium 99 labeled

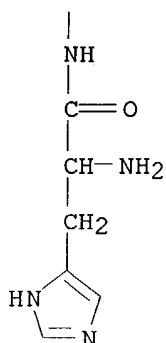
RL: DGN (Diagnostic use); BIOL (Biological study); USES (Uses)  
(somatostatin receptor binding peptidic ligands for diagnostic and therapeutic applications in nuclear medicine)

RN 473931-73-6 HCAPLUS

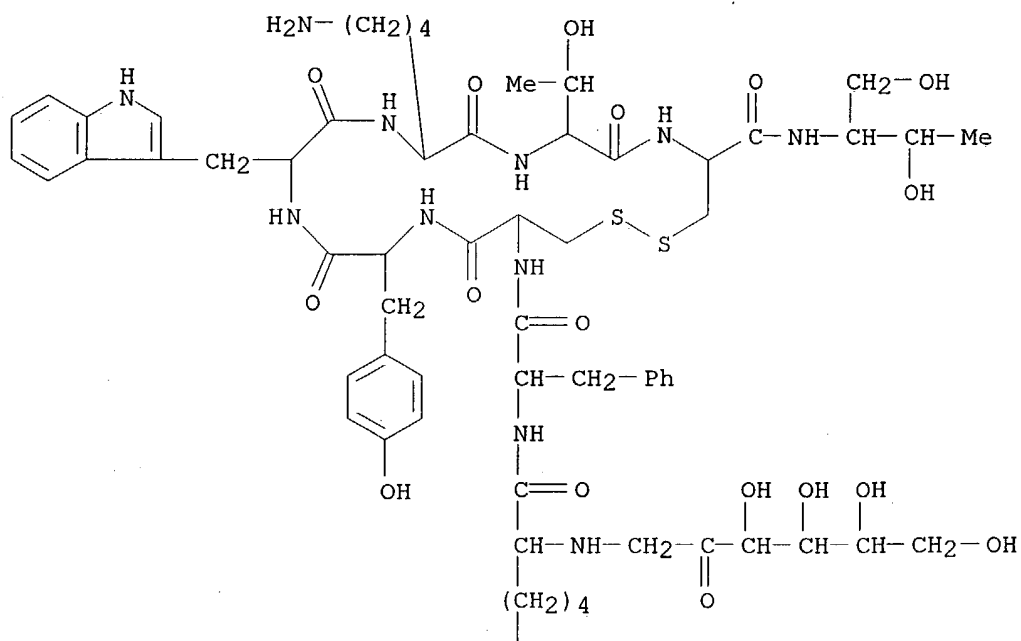
CN L-Cysteinamide, N6-L-histidyl-L-lysyl-D-phenylalanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-threonyl-N-[(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]-, cyclic (4→9)-disulfide (9CI) (CA INDEX NAME)

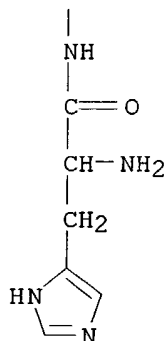
PAGE 1-A





IT **473931-67-8DP**, technetium 99 complexes  
 RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL  
 (Biological study); PREP (Preparation); USES (Uses)  
 (somatostatin receptor binding peptidic ligands for diagnostic  
 and therapeutic applications in nuclear medicine)  
 RN 473931-67-8 HCAPLUS  
 CN L-Cysteinamide, N2-(1-deoxy-D-fructos-1-yl)-N6-L-histidyl-L-lysyl-D-  
 phenylalanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-threonyl-N-  
 [(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]-, cyclic  
 (4-9)-disulfide (9CI) (CA INDEX NAME)





IT 473931-66-7P 473931-67-8P 473931-68-9P

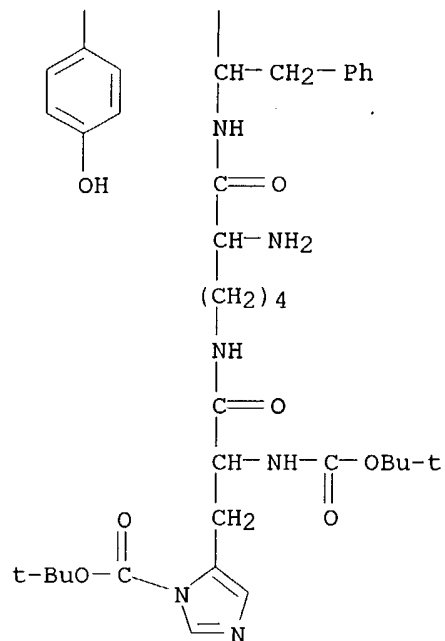
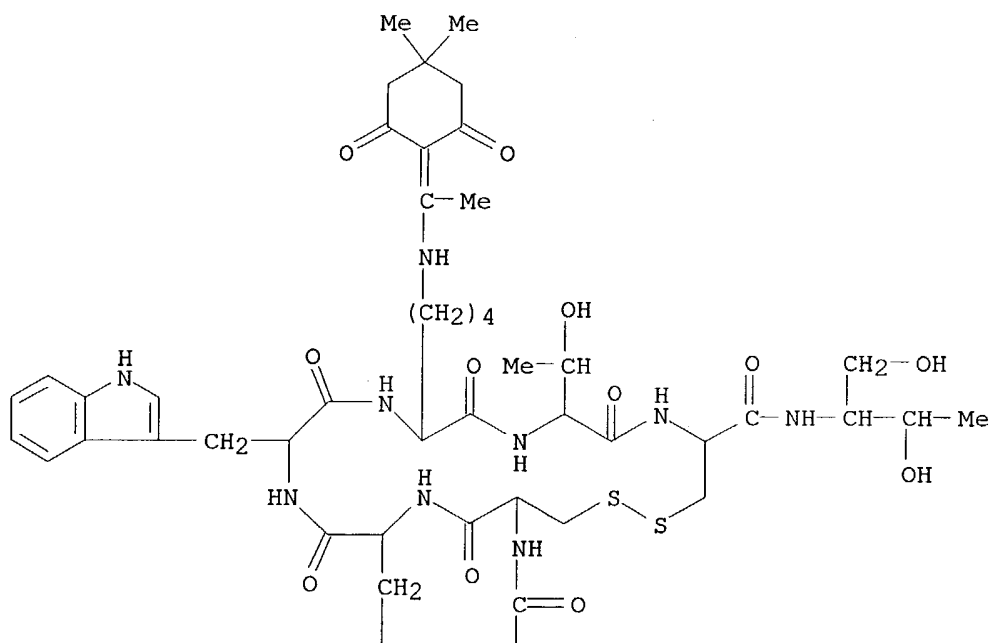
473931-69-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
 RACT (Reactant or reagent)

(somatostatin receptor binding peptidic ligands for diagnostic  
 and therapeutic applications in nuclear medicine)

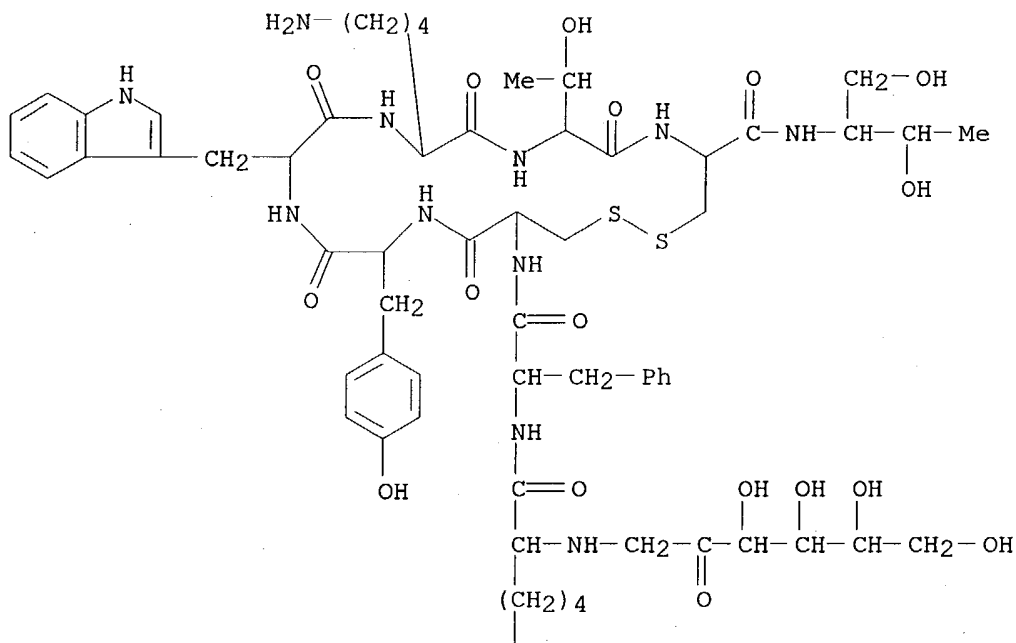
RN 473931-66-7 HCAPLUS

CN L-Cysteinamide, N6-[N,3-bis[(1,1-dimethylethoxy)carbonyl]-L-  
 histidyl]-L-lysyl-D-phenylalanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-  
 N6-[1-(4,4-dimethyl-2,6-dioxocyclohexylidene)ethyl]-L-lysyl-L-  
 threonyl-N-[(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]-, cyclic  
 (4→9)-disulfide (9CI) (CA INDEX NAME)

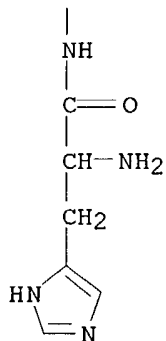


RN 473931-67-8 HCAPLUS  
 CN L-Cysteinamide, N2-(1-deoxy-D-fructos-1-yl)-N6-L-histidyl-L-lysyl-D-phenylalanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-threonyl-N-[(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]-, cyclic (4→9)-disulfide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

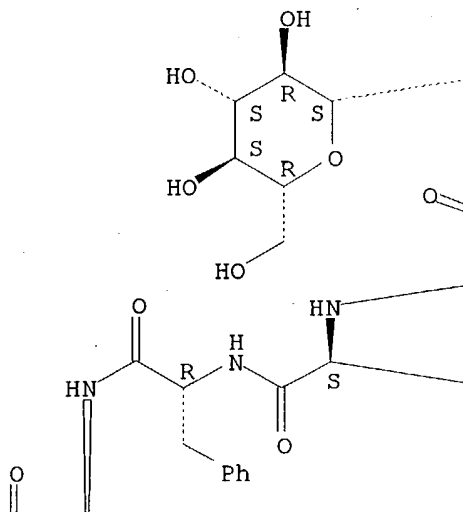
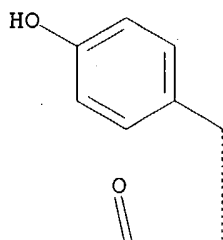


RN 473931-68-9 HCAPLUS  
 CN L-Cysteinamide, N2-(1-deoxy-4-O-β-D-glucopyranosyl-D-fructos-1-yl)-N6-L-histidyl-L-lysyl-D-phenylalanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-threonyl-N-[(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]-, cyclic (4→9)-disulfide (9CI) (CA

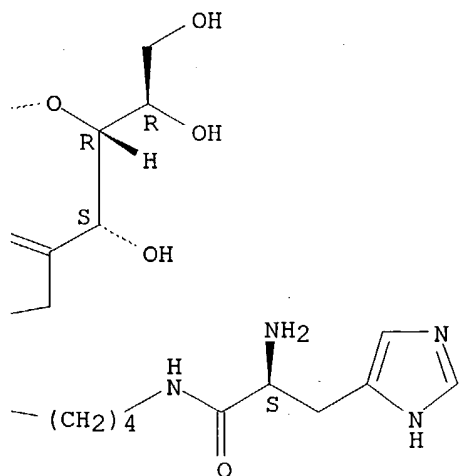
INDEX NAME)

Absolute stereochemistry.

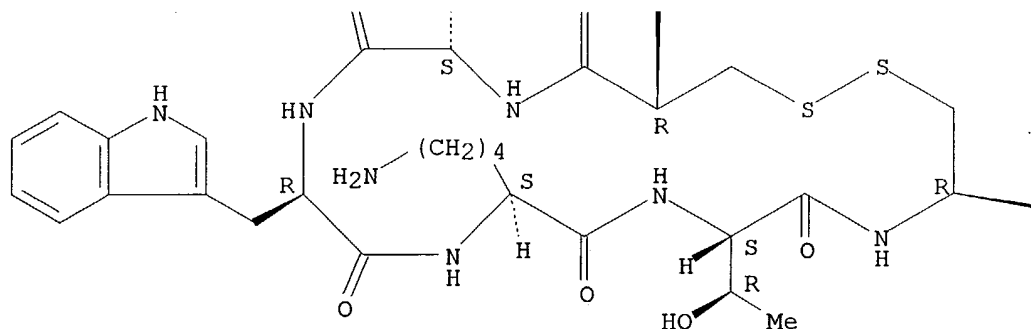
PAGE 1-A



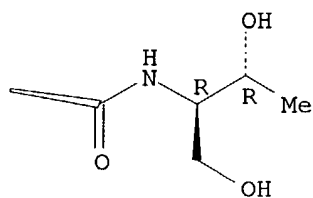
PAGE 1-B



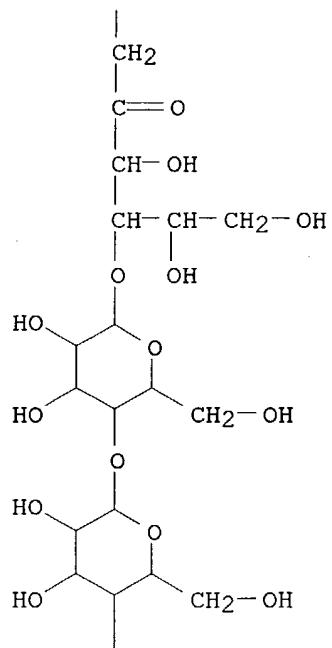
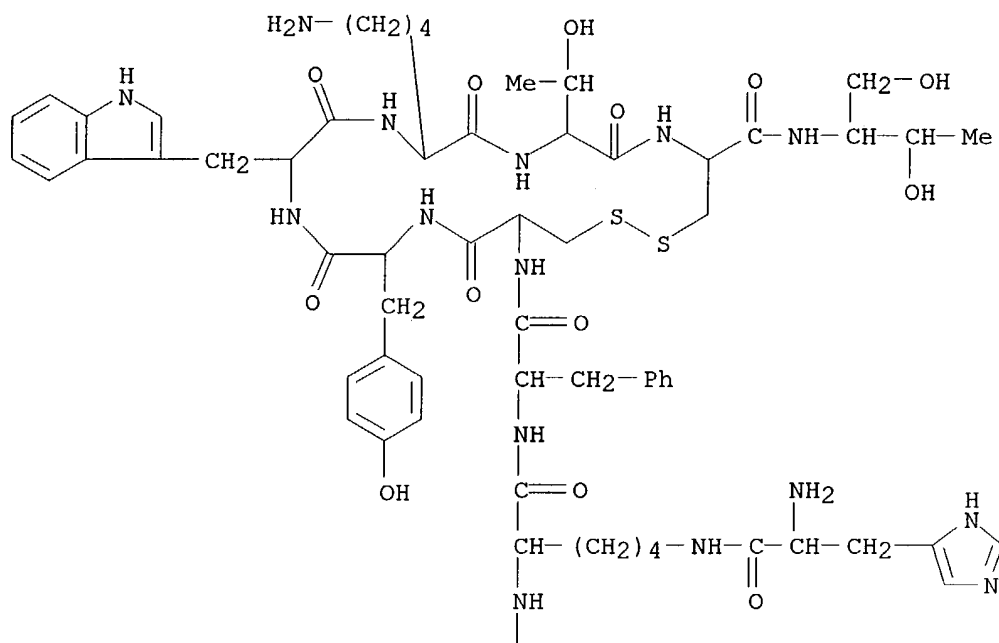
PAGE 2-A



PAGE 2-B



RN 473931-69-0 HCAPLUS  
 CN L-Cysteinamide, N2-(O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-1-deoxy-D-fructos-1-yl)-N6-L-histidyl-L-lysyl-D-phenylalanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-threonyl-N-[(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]-, cyclic (4 $\rightarrow$ 9)-disulfide (9CI) (CA INDEX NAME)



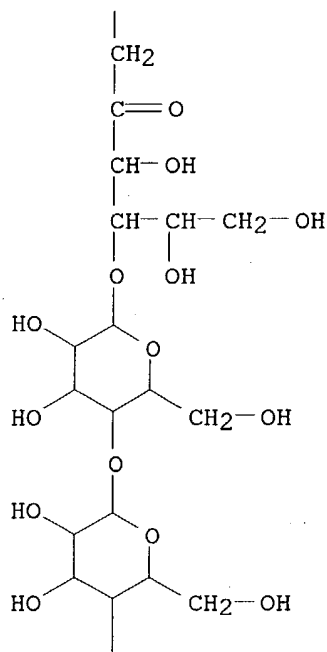


$$\begin{array}{c} | \\ \text{OH} \end{array}$$

RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(<sup>99m</sup>Tc-labeled glycosylated octreotide analog preparation and somatostatin receptor binding)

|    |   |
|----|---|
| CN | L-Cysteinamide, N2-(O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-O- $\alpha$ -D-glucopyranosyl-(1 $\rightarrow$ 4)-1-deoxy-D-fructos-1-yl)-N6-L-histidyl-L-lysyl-D-phenylalanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-threonyl-N-[(1R,2R)-2-hydroxy-1-(hydroxymethyl)propyl]-, cyclic (4 $\rightarrow$ 9)-disulfide (9CI) (CA INDEX NAME) |
|----|---|

C[C@H](O)[C@@H](NC(=O)C[C@H](N)C(=O)N[C@@H](CSCC(=O)N[C@@H](Cc1ccc(O)cc1)C(=O)N[C@@H](Cc2c[nH]c3ccccc23)C(=O)N[C@@H](CO)C(=O)N[C@@H](Cc4c[nH]c5ccccc45)C(=O)N)C(=O)N



L13 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:151832 HCAPLUS  
 DOCUMENT NUMBER: 136:340986  
 TITLE: Synthesis and Cleavage Experiments of  
 Oligonucleotide Conjugates with a  
 Diimidazole-Derived Catalytic Center  
 AUTHOR(S): Verbeure, Birgit; Lacey, Carl Jeff; Froeyen,  
 Mattheus; Rozenski, Jef; Herdewijn, Piet  
 CORPORATE SOURCE: Laboratory of Medicinal Chemistry, Rega  
 Institute for Medical Research, Katholieke  
 Universiteit Leuven, Louvain, B-3000, Belg.  
 SOURCE: Bioconjugate Chemistry (2002), 13(2), 333-350  
 CODEN: BCCHE; ISSN: 1043-1802  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 136:340986  
 AB RNase mimics based on diimidazole derived constructs in combination  
 with or without addnl. amino groups have been synthesized and  
 conjugated to oligonucleotides. The imidazole moiety was used

either unprotected, protected with a monomethoxytrityl group or a tert-butyloxy carbonyl group. Acylation reactions were carried out using the 3-acyl-1,3-thiazolidine-2-thione activation strategy. The peptides were coupled to the oligonucleotides with a mixture of PyBOP, DIEA and HOBt in DMF on solid support. The conjugates were purified by RP-HPLC and identified using neg. ion mode mass spectrometry. Unfortunately, no cleavage of a linear RNA target under physiol. conditions could be observed

IT 415696-39-8P 415696-40-1P 415696-41-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

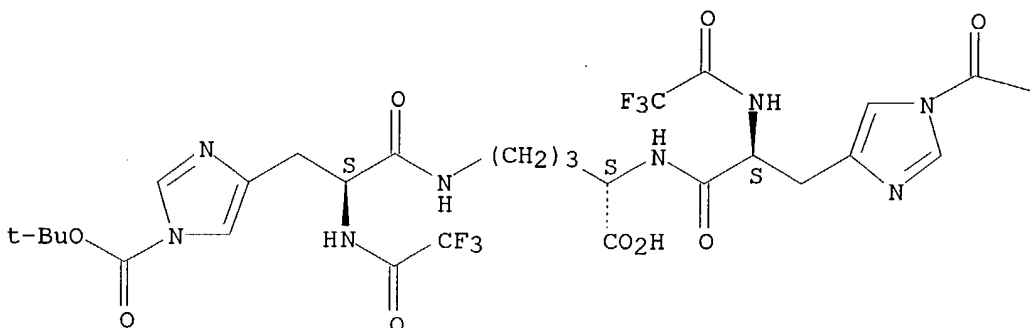
(preparation of peptide-oligonucleotide conjugates for use as RNase A mimics)

RN 415696-39-8 HCAPLUS

CN 1H-Imidazole-1-carboxylic acid, 4,4'-[[[(1S)-1-carboxy-1,4-butanediyl]bis[imino[(2S)-3-oxo-2-[(trifluoroacetyl)amino]-3,1-propanediyl]]]bis-, 1,1'-bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

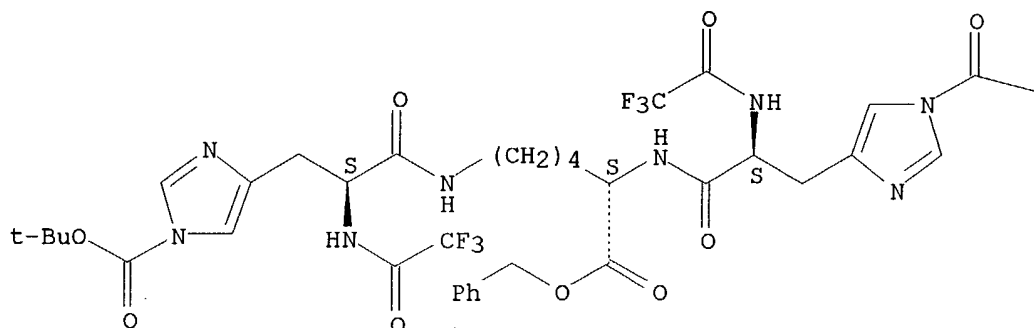
OBu-t

RN 415696-40-1 HCAPLUS

CN 1H-Imidazole-1-carboxylic acid, 4,4'-[[[(1S)-1-[(phenylmethoxy)carbonyl]-1,5-pentanediy]bis[imino[(2S)-3-oxo-2-[(trifluoroacetyl)amino]-3,1-propanediyl]]]bis-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



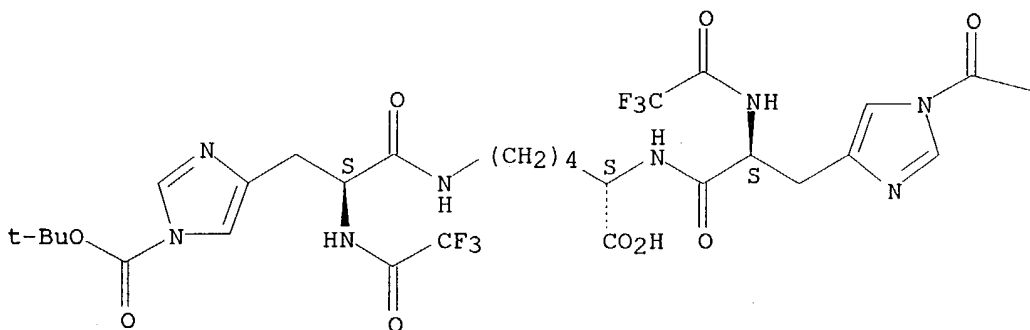
PAGE 1-B

—OBu-t

RN 415696-41-2 HCAPLUS  
 CN 1H-Imidazole-1-carboxylic acid, 4,4'-[[[(1S)-1-carboxy-1,5-pentanediy]]bis[imino[(2S)-3-oxo-2-[(trifluoroacetyl)amino]-3,1-propanediy]]]]bis-, 1,1'-bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—OBu-t

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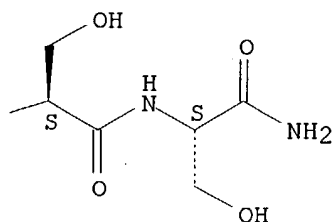
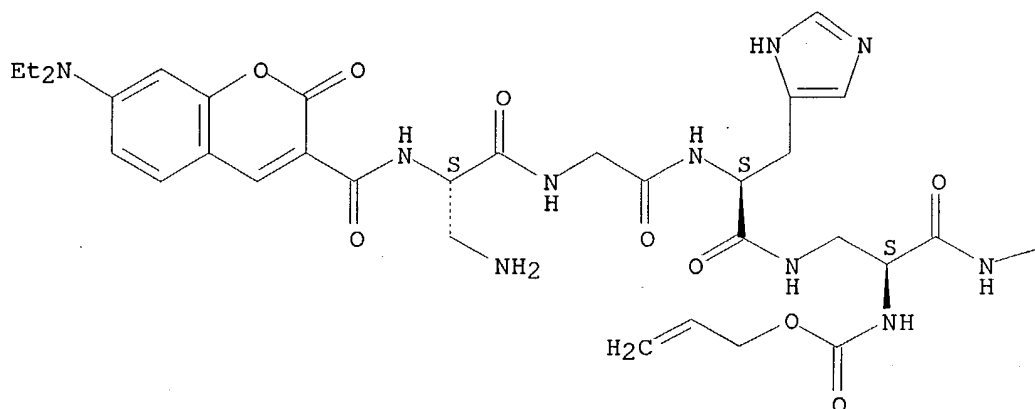
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09/857448

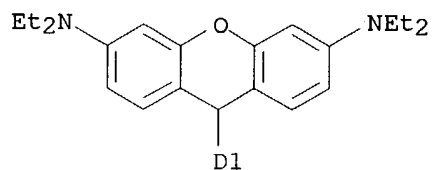
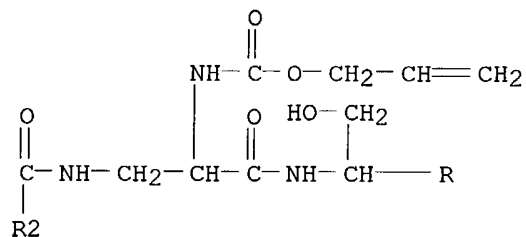
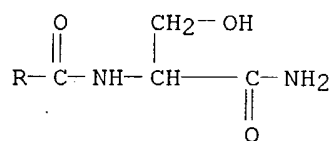
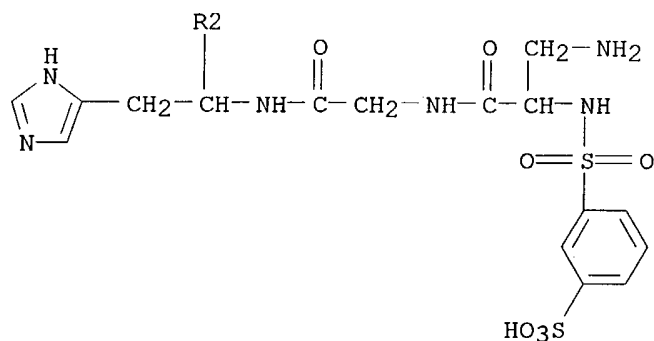
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L13 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1998:554706 HCAPLUS  
DOCUMENT NUMBER: 129:254017  
TITLE: Peptidyl chemosensors incorporating a FRET  
mechanism for detection of Ni(II)  
AUTHOR(S): Pearce, Dierdre A.; Walkup, Grant K.; Imperiali,  
Barbara  
CORPORATE SOURCE: Division of Chemistry and Chemical Engineering,  
California Institute of Technology, Pasadena,  
CA, 91125, USA  
SOURCE: Bioorganic & Medicinal Chemistry Letters (1998),  
8(15), 1963-1968  
CODEN: BMCLE8; ISSN: 0960-894X  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Hexapeptides incorporating two fluorophores flanking a tripeptide  
sequence that binds Ni(II) and Cu(II) with high affinity were  
synthesized. While Cu(II) quenches the fluorescence of the  
resulting peptides, coordination of Ni(II) enables enhanced FRET  
(fluorescent resonance energy transfer) from one fluorophore to the  
other.  
IT 213135-24-1P 213185-06-9P 213185-07-0P  
213185-08-1P 213185-11-6P  
RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic  
preparation); ANST (Analytical study); PREP (Preparation); USES  
(Uses)  
(preparation and use as peptidyl chemosensors incorporating a  
fluorescent resonance energy transfer mechanism for detection of  
Ni(II))  
RN 213135-24-1 HCAPLUS  
CN L-Serinamide, 3-amino-N-[[7-(diethylamino)-2-oxo-2H-1-benzopyran-3-  
yl]carbonyl]-L-alanylglycyl-L-histidyl-(2S)-2-[[2-  
propenyloxy)carbonyl]amino]- $\beta$ -alanyl-L-seryl- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.

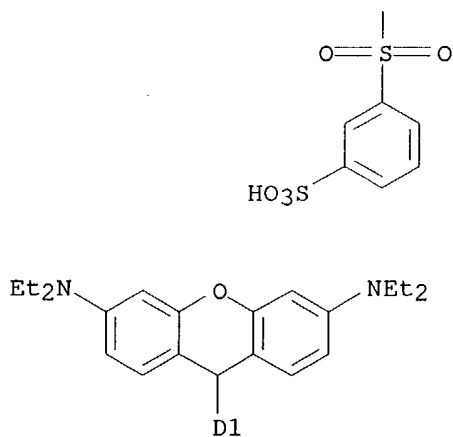
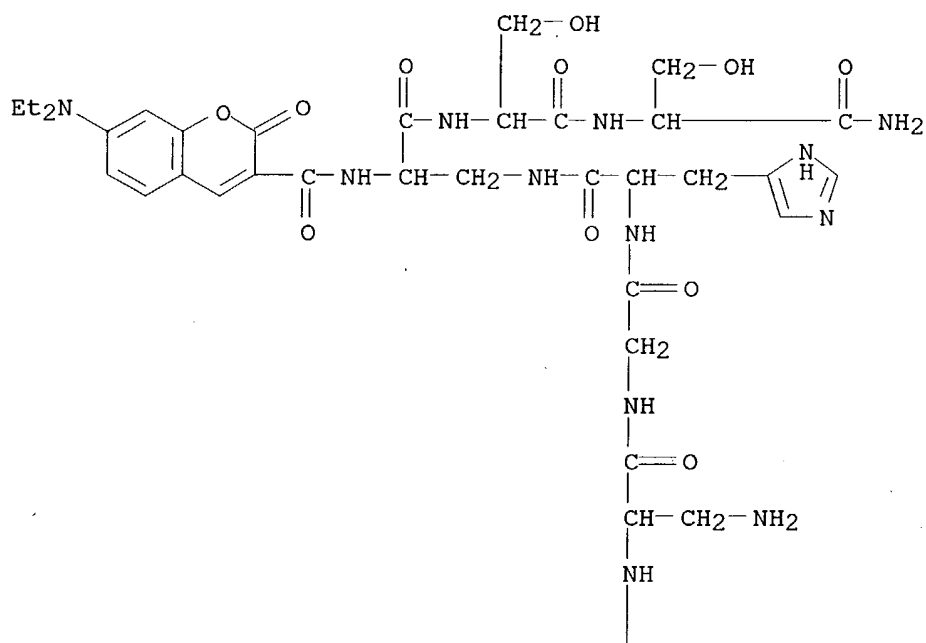


RN 213185-06-9 HCAPLUS  
 CN L-Serinamide, 3-amino-N-[[2(or 4)-[3,6-bis(diethylamino)-9H-xanthen-9-yl]-5-sulfohenyl]sulfonyl]-L-alanylglycyl-L-histidyl-(2S)-2-[[2-propenyloxy)carbonyl]amino]-β-alanyl-L-seryl- (9CI) (CA INDEX NAME)



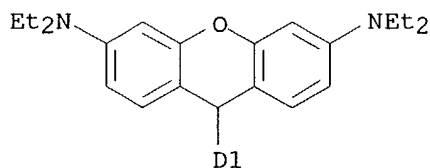
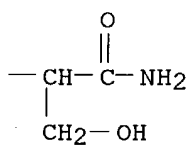
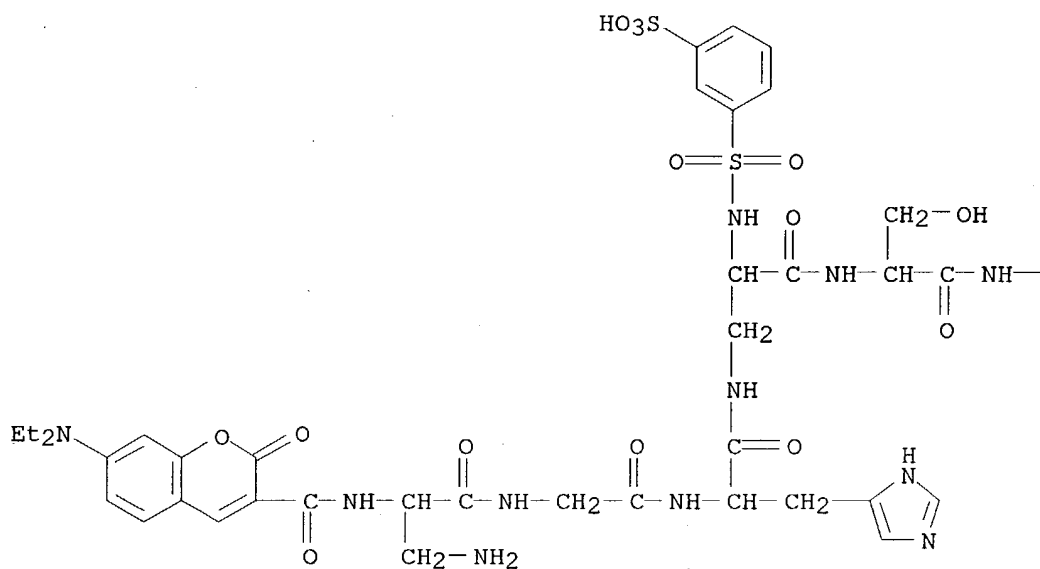
RN 213185-07-0 HCAPLUS

CN L-Serinamide, 3-amino-N-[[2(or 4)-[3,6-bis(diethylamino)-9H-xanthen-9-yl]-5-sulfohenyl)sulfonyl]-L-alanylglycyl-L-histidyl-(2S)-2-[[[7-(diethylamino)-2-oxo-2H-1-benzopyran-3-yl]carbonyl]amino]-β-alanyl-L-seryl- (9CI) (CA INDEX NAME)

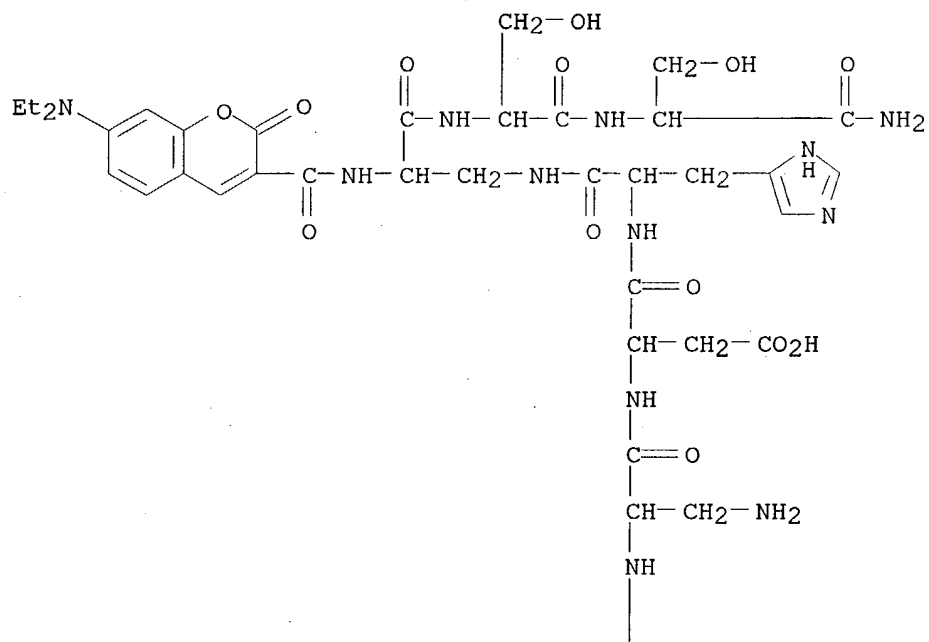


RN 213185-08-1 HCAPLUS  
 CN L-Serinamide, 3-amino-N-[[7-(diethylamino)-2-oxo-2H-1-benzopyran-3-yl]carbonyl]-L-alanylglycyl-L-histidyl-(2S)-2-[[[2(or 4)-[3,6-bis(diethylamino)-9H-xanthen-9-yl]-5-sulfophenyl]sulfonyl]amino]-β-alanyl-L-seryl- (9CI) (CA INDEX NAME)

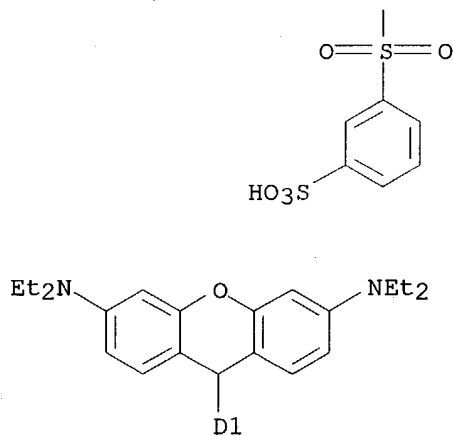




RN 213185-11-6 HCAPLUS  
 CN L-Serinamide, 3-amino-N-[[2(or 4)-[3,6-bis(diethylamino)-9H-xanthen-9-yl]-5-sulfophenyl]sulfonyl]-L-alanyl-L- $\alpha$ -aspartyl-L-histidyl-(2S)-2-[[[7-(diethylamino)-2-oxo-2H-1-benzopyran-3-yl]carbonyl]amino]- $\beta$ -alanyl-L-seryl- (9CI) (CA INDEX NAME)



PAGE 2-A



L13 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1998:363423 HCAPLUS  
DOCUMENT NUMBER: 129:122858

Searcher :        Shears        571-272-2528

09/857448

TITLE: Protease-catalyzed synthesis of peptides  
containing histidine and lysine  
AUTHOR(S): Beck-Piotraschke, Karin; Jakubke, Hans-Dieter  
CORPORATE SOURCE: Fakultat fur Biowissenschaften, Pharmazie und  
Psychologie, Institut fur Biochemie, Universitat  
Leipzig, Leipzig, D-04103, Germany  
SOURCE: Tetrahedron: Asymmetry (1998), 9(9), 1505-1518  
CODEN: TASYE3; ISSN: 0957-4166  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The kinetically controlled  $\alpha$ -chymotrypsin- and  
trypsin-catalyzed syntheses of peptides starting from simple acyl  
donor esters containing histidine at the P1-position and lysine derivs.  
as amino components were examined on the basis of their kinetic  
parameters. Despite higher specificity consts. (kcat/KM) of  
trypsin-catalyzed ester hydrolysis,  $\alpha$ -chymotrypsin-catalyzed  
acyl transfer to N $\epsilon$ -unprotected lysine derivs. gave higher  
peptide yields as compared to trypsin-catalyzed reactions, whereas  
in acyl transfer to N $\epsilon$ -protected lysine derivs. the  
trypsin-catalyzed reaction gave higher yields.  $\alpha$ -Chymotrypsin-  
catalyzed acyl transfer reactions in frozen systems demonstrated the  
yield-enhancing effect of freezing. Using specific ester leaving  
groups, both the amount of enzyme and the reaction time can be  
reduced. In frozen systems the  $\epsilon$ -amino function of H-Lys-OH  
acts as an acyl acceptor at pH  $\geq$ 9.

IT 210166-15-7P

RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP  
(Preparation)  
(chymotrypsin- or trypsin-catalyzed synthesis of histidyllysyl  
peptides)

RN 210166-15-7 HCAPLUS

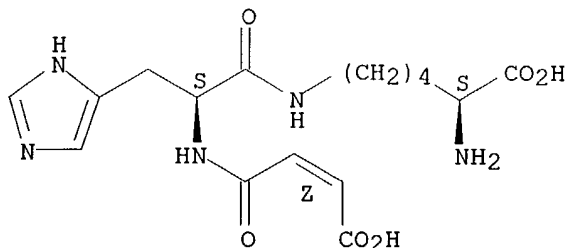
CN L-Lysine, N6-[N-[(2Z)-3-carboxy-1-oxo-2-propenyl]-L-histidyl]-,  
bis(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 210166-14-6

CMF C16 H23 N5 O6

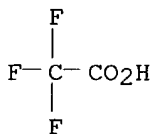
Absolute stereochemistry.  
Double bond geometry as shown.



CM 2

09/857448

CRN 76-05-1  
CMF C2 H F3 O2



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L13 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:335668 HCAPLUS

DOCUMENT NUMBER: 127:77760

TITLE: Potent pseudosubstrate-based peptide inhibitors  
for p60c-src protein tyrosine kinase

AUTHOR(S): Lou, Qiang; Leftwich, Margaret E.; McKay, R.  
Trent; Salmon, Sydney E.; Rychetsky, Lenka; Lam,  
Kit S.

CORPORATE SOURCE: Department Medicine, Arizona Cancer Center,  
University Arizona College Medicine, Tucson, AZ,  
85724, USA

SOURCE: Cancer Research (1997), 57(10), 1877-1881  
CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We recently reported the identification of GIYWHHY as an efficient  
and specific substrate for p60c-src protein tyrosine kinase (PTK) by  
screening a secondary random peptide library (Q. Lou et al., Bioorg.  
Med. Chemical, 4:677-682, 1996). Based on the primary structure of  
GIYWHHY, we designed and synthesized several pseudosubstrate-based  
peptide inhibitors. Some of these peptide inhibitors are highly  
potent and specific with IC50 in the low micromolar range. Because  
both YIYGSEFK and GIY-WHHY are efficient and specific substrates for  
p60c-src PTK, chimeric branched peptides based on these two  
sequences were synthesized. These branched peptides inhibit  
p60c-src PTK with high potency, indicating that the enzyme-active  
site of p60c-src PTK can accommodate more than a linear motif. This  
may explain why seemingly several peptides with very different  
linear structures can all be phosphorylated by this enzyme.

IT 191742-06-0

RL: BAC (Biological activity or effector, except adverse); BSU  
(Biological study, unclassified); PRP (Properties); BIOL (Biological  
study)  
(potent pseudosubstrate-based peptide inhibitors for p60c-src  
protein tyrosine kinase)

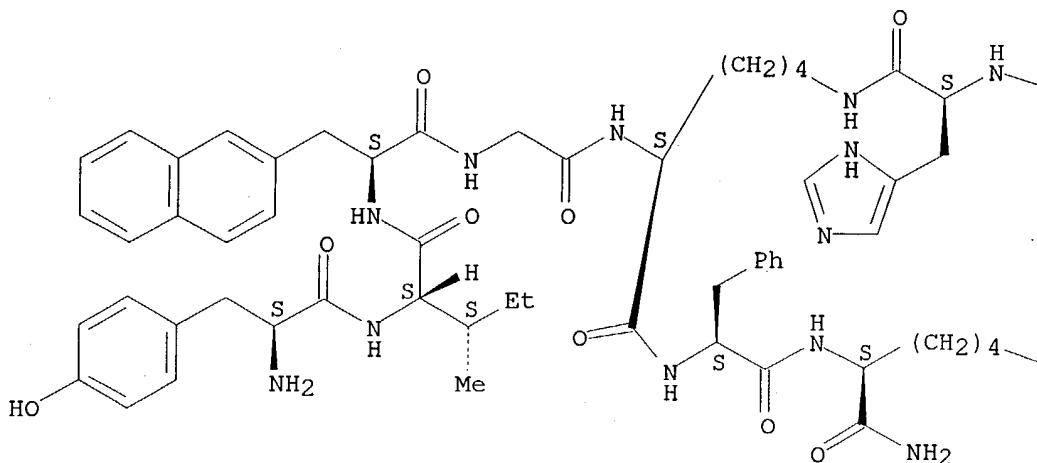
RN 191742-06-0 HCAPLUS

CN L-Lysinamide, L-tyrosyl-L-isoleucyl-3-(2-naphthalenyl)-L-  
alanylglycyl-N6-(L-histidyl-L-histidyl)-L-lysyl-L-phenylalanyl-  
(9CI) (CA INDEX NAME)

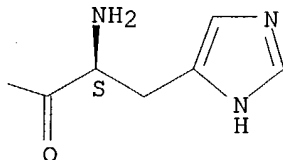
Searcher : Shears 571-272-2528

Absolute stereochemistry.

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PAGE 1-B



NH<sub>2</sub>

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1997:718 HCAPLUS  
 DOCUMENT NUMBER: 126:88285  
 TITLE: Branched hybrid and cluster peptides effective in diagnosing and detecting non-A, non-B hepatitis  
 INVENTOR(S): Wang, Chang-yi; Hosein, Barbara H.  
 PATENT ASSIGNEE(S): United Biomedical, Inc., USA  
 SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No.

Searcher : Shears 571-272-2528